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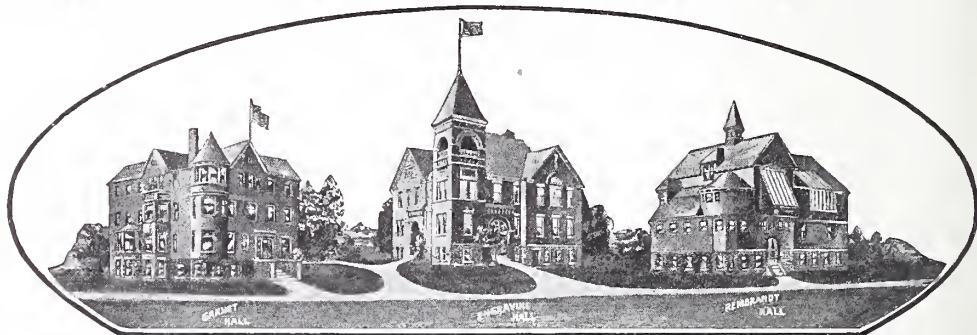
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A Photographic Monthly

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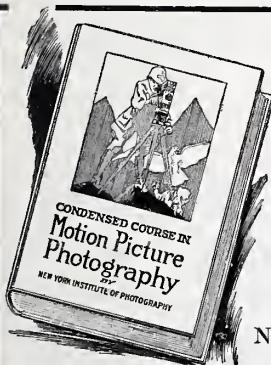
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CRAFT



A PHOTOGRAPHIC MONTHLY

FAYETTE J. CLUTE, Editor

CLAUS SPRECKELS BLDG.

SAN FRANCISCO

CALIFORNIA

VOL. XXVII

AUGUST, 1920

No. 8

## An Attractive Field

By a Red Cross Worker



Illustrated by Typical Photographs

Unlimited variety, and poses rich in beauty and sentiment, are available to the photographer who keeps himself informed as to the functions of the American Red Cross in his community.



THE PURITAN FATHERS—A PAGEANT PUT ON BY THE RED CROSS JUNIORS

## CAMERA CRAFT

It needs only the realization that the peacetime program of that organization is one of public health service, together with sufficient familiarity with the scope and kind of activities therein represented, to demonstrate the wealth of material in situation and suggestion provided.

Numberless variations of the conventional "Mother and Child" theme are suggested in the field of Baby Welfare and Child Hygiene. With the vast network of Chapters, branches and auxiliaries that extends from Coast to Coast, and from Canadian to Mexican borders, committed to the campaign of teaching health conservation and disease control by means of Health Centers and Teaching Centers, established in every community, what more appropriate impetus could be given to the movement than that afforded by photographs, showing local women, young girls and children, engaged in various phases of this health education work.



"PLAYING INDIAN" ON A RED CROSS PLAYGROUND—A FAVORITE PASTIME

A society matron, for example, attired in the attractive simplicity of the regulation apron and cap, bathing a smiling cherub, every baby curve beguiling in evidence, would not only be a charming picture, but would undoubtedly find a place on the society page of the leading newspaper, as a graphic example of the way the Red Cross prescribed that baby's bath should be given.

Or the changes could be rung on the always popular pose showing a nude infant, by posing him in a weighing basket with a background similar to that to be found in the Red Cross Health Center, where every mother is encouraged to bring her baby regularly, to test his weight and measurements and regulate his diet and habits.



## AN ATTRACTIVE FIELD



RED CROSS INSTRUCTION IN THE CHILDREN'S HOSPITAL—AN INTERESTING POSE



THE HOME VISITING RED CROSS NURSE—INSTRUCTING THE YOUNG MOTHER



## CAMERA CRAFT

Delightful poses featuring the unstudied grace and eager curiosity of childhood are suggested by First Aid pictures. The need of scrupulous care for such minor injuries as slight scratches, cuts and burns is well illustrated by grouping a family so that a mother can be shown painting a rosy limb with iodine, or bandaging a pudgy finger, the child subject watching intently, while the other children cluster about in poses of frank curiosity.

A little girl looking at her Red Cross Scrap Book, or an older girl engaged in finishing a toy, suggests the activities of the Junior Red Cross children in making picture books and toys for the less fortunate children at home and abroad.

Every young girl loves to see herself in the guise of a ministering angel. The appeal to the adolescent mind of the Red Cross Nurse is very often due as much to the picturesqueness of the uniform and the sentiment it represents as to her desire to bind up the wounds of suffering humanity. This naive attitude may be made an asset without affront by persuading the young lady that other garbs, indicative of her own actual participation in Red Cross work are equally as attractive. In the becoming garb which she wears as she bakes and brews under the direction of the Dietitian in her Home Dietetics Class, and posed in a characteristic phase of that instruction, she may display her beauty as well as her proficiency. The model young woman of today delights in her efficiency and versatility, so that the subject will not have been exhausted with the Dietetics. Home nursing, Home and Community Hygiene, Domestic Science, and again First Aid suggest endless varieties of interesting poses. Moreover the family group may be introduced in the same series. Big sister may preside at the stove or demonstration table, preparing for the edification of other members of the family some dish or drink she has learned to make at the Red Cross Teaching Center while the younger kiddies pore over a cook book or diet chart in the foreground.

In every community ex-service men are to be found, who will gladly co-operate with any Red Cross undertaking. So that if a pose requires the portrayal of a soldier or sailor, such atmosphere may readily be supplied by the young man himself, attired in his discarded uniform, or by some proxy to whom the uniform has been lent.

Often realism may be lent to Nursing or First Aid pictures by photographing a hospital. And from this type of indoor photography even the amateur need not shrink, inasmuch as the white walls and abundance of light provided in most institutions makes the taking of interiors comparatively simple. Of course in such cases tact and common sense should be exercised in obtaining the consent to such a proceeding of the proper hospital authorities and trustees.

As a business proposition, it might pay the ambitious young photographer who has recently set up shop, to proffer his services to the publicity chairman of the local Red Cross Chapter, for any group pictures desired to feature the Public Health Service Program. Probably the percentage of orders received from the members shown in the group would prove that it

## AN ATTRACTIVE FIELD



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RED CROSS TREATMENT AT THE SOUTHINGTON, CONNECTICUT, HEALTH CENTER



## CAMERA CRAFT

pays, in cold cash, as well as in self-satisfaction and altruism, to lend a hand to the Red Cross.

The photographer should keep in mind the fact that any group picture or single subject, taken in costume, has a far wider appeal when the pictures show plainly WHY the group is assembled; why the costume is worn. A pretty girl in a nurse's uniform is not half so compelling or alluring, for example as when she is shown performing some characteristic service associated with the uniform.

Group pictures destined to adorn the walls of the homes of those therein depicted as well as for display in Chapter Headquarters, offer many opportunities for out-door photography. Motor Corp members, engaged in disaster relief, or in the service of carrying out patients to and from hospitals, give an opportunity to bring in local color as well as to feature the diversity of service performed by that body.

Interesting work in First Aid, in which High School boys or girls may pose a companion in a litter, or other phases of First Aid work, requires no professional artifices in the use of interiors, flashlights, or expensive lenses.

Costumed poses by small boys are suggested by the pageants and playlets frequently given by Junior Red Cross members, where Indian regalia or garbs of all nations are factors.

In short, the fertility of resources of the American Red Cross connote a corresponding fertility of subjects in the field of photography, which the professional or amateur alike may seize upon, always secure in the knowledge that the subject is universally popular, and often lucrative. For not only will the local Red Cross activities find frequent mention in the public press,—the pictures accompanying them, advertising the photographer in the case,—but the practice of popularizing a new function of Red Cross work, by means of window displays and pictures of local members exhibited in local public places, will bring increased patronage to the photographers who avail themselves of the new field.







# The Anaglyph

By B. H. Winters

It is to the late Ducos du Hauron that we are indebted for the anaglyph—the stereoscopic lantern slide. Although the process is well known and details are available for the preparation of the slides, very little use has ever been made of it. This is due to the fact that it has been looked upon more or less, as a scientific curiosity.

In reality it is anything but that. It is a thoroughly practical process and when the anaglyphs are properly made and projected they give pictures of extraordinary beauty. There is nothing difficult about the making of the slides. There are a few things that one must guard against, but the trouble one encounters is more apt to be due to the inability to procure suitable dyes for staining the images and viewing filters than to inherent defects in the process itself.

Although primarily intended for lantern slide projection, the anaglyph with slight modification is adapted for ordinary stereoscopic work and it is with this phase of the subject that this article will deal.

In order to understand the optical principles on which the obtaining of the effect desired is based, let us consider a simple case.

Take a green print made from the right hand side of a stereoscopic negative and examine it through a piece of green glass. If the green in the picture has the same absorption power as the glass, nothing will be visible. Now take a red print made from the other side of the negative and examine it through a piece of red glass. As before, nothing will be seen, provided the glass has the proper absorption qualities, which we assume it has.

Now reverse the pictures and examine the green print through the red glass and the red print through the green glass. There is now a different story to tell. In both instances you will see a picture, the lines of which will be black.

Mount the two pictures together and you will have an anaglyph. If this has been done properly, the eyes looking through glasses of different color will see, not two, but a single image in monotone as in viewing an ordinary stereoscopic picture.

In one particular the anaglyph differs from the stereoscope very materially. Whereas in the latter it is customary to preserve a distance of about two and three-quarters of an inch between centers, in the anaglyph the distance is reduced to a quarter of an inch or even less. This is practically superimposing one picture on another and because of this the top picture must have a transparent support. How this may be done will be described later on.

## CAMERA CRAFT

One of the most difficult things that one has to contend with in the making of anaglyphs is the procuring of suitable colored glass. Many workers use stained film for the viewing glasses and, generally speaking, it is the most satisfactory solution of the problem.

As a matter of convenience, the glasses or film, as the case may be, are mounted like a pair of ordinary spectacles and used in much the same way. There is no particular rule as to which eye is to have the red or green filter. The essential thing is, that having determined upon the arrangement, to see that the pictures are properly placed for viewing. If the right eye has the red filter, then the right hand picture must be green, and the left eye having the green filter, the left hand picture must be red. Each eye will then see but one image and if these have been reversed, as is customary in ordinary stereoscopic work, the effect will be that of a single picture standing out with all the life and naturalness that is characteristic of views of this type.

A few words of explanation may make some of the details of the process a little clearer. First of all, let it be understood that the worker is not confined to the two colors red and green. Any two colors may be used, provided they are complimentary. Red and blue are frequently used and are preferred by a great many.

Let us assume that we are about to make an anaglyph using these two colors and that the blue will be used on the right hand side and that it will form the background on which the red is to be superimposed. If we decide to make the blue image on paper, as is frequently done, several processes are open. We may make a cyanotype or blue print or we may employ carbon. Or if not satisfied with these we may make use of one of the many toning processes which will give the desired effect.

If instead of an opaque background we decide on a transparency, still other ways are opened up of which the pinatype process is unquestionably the best, and for that matter the only one which the worker should use if he is seeking the best results obtainable. Descriptions of this process have appeared in CAMERA CRAFT from time to time and to these the reader is referred for details.

The background having been obtained, the next step is to secure the second image on a transparent support. Carbon tissue such as is used in tri-color work is admirably adapted for this purpose when mounted on thin celluloid.

If one does not wish to employ carbon, he may make use of a piece of negative film. The unexposed film is first sensitized in a bichromate solution in precisely the same way that one would treat carbon tissue. When dry it is exposed under the negative in a printing frame with the gelatine side reversed. At least five or even ten minutes' exposure to the sky is desirable. The object is to tan or render insoluble the gelatine. Those who have worked with carbon will understand what is wanted. The film is now placed in warm water and the soluble parts removed by gentle laying; a soft brush, if necessary, being used to hasten the action. It is then fixed, washed and dried, after which it is ready for dyeing.

## THE ANAGLYPH



HOME PORTRAITURE—LINE LIGHTING



By F. MORRIS STEADMAN

The dyeing is really the rock on which the anaglyn is either shattered or finds a firm support. At the present time it is extremely difficult to find suitable organic dyes, but here and there one may run across some and when this happens it will well repay any one interested in the subject to look into the process.

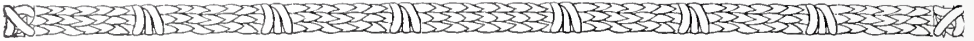
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Robert W. Chambers, in an interview, was asked: "What is your definition of Art?"

"Oh, d—n art! The men who counted never bothered their heads about art. The old masters were artisans first of all — good workmen, honest workmen. What amazes me about them was their honesty. They were in business—artists, sculptors, goldsmiths, architects—and when they had commissions to execute they merely did their very best and emitted no whine about 'what is art?' The art took care of itself, after an honest job had been executed. Some of these jobs were artistic, some commonplace, varying according to the intelligence and executive ability of the workman. That's all I know about art."

Now is there, is there, a more welcome sight on the footstool than the man who does his work well, and does it well because he likes to do it well, because he is proud to do it well, because it is right that he should do it well? No, there is not.—Henry B. Fuller.





# Cyanotype Plates

By Hugh Wensfield

Although the cyanotype process is almost invariably associated with the making of blue-prints, it is quite possible to employ it in the production of transparencies and lantern slides. With some subjects, such as snow scenes and moonlight effects, the results are of extraordinary beauty.

Cyanotype plates are of course unobtainable in the open market and if one wishes to employ them, he must of necessity prepare them himself. To start with it is necessary to have a plate coated with gelatine and free from silver salts. There are three ways by which such a plate may be obtained.

Stale plates which have not been exposed may be treated in an ordinary fixing solution and then hardened, washed and dried after which they are ready for sensitizing.

Another method is to take plates which have been developed, but which one does not care to retain and to remove the metallic silver from the film by means of one of the numerous reducers available for that purpose. In case this method should be employed care should be exercised to see that the last trace of silver present is removed. This is not as difficult an operation as one would imagine. It is merely a matter of allowing the plate to remain in the solution a sufficient length of time and to exercise due care in the subsequent washing operations. Another thing to guard against is the use of scratched or stained plates. Any little abrasion of the film or coloration due to pyro or other developing agent is sure to be productive of trouble. It is needless to say that plates that have been retouched or intensified are not likely to give satisfactory results.

The third method and the one which would naturally commend itself to the amateur who is interested in experimental work, is the coating of the plate himself. At first glance this would seem a very difficult thing to do, and yet it is a very simple operation. Collodion, gum and particularly carbon workers who have prepared their own tissue would find it mere play. Anyone wishing to go into the details of this method of preparation will find in any one of the numerous articles which, from time to time, have been written on the subject of home-made plates, full directions for the preparation of the gelatine coating. One has merely to take the formula as given and leave out the silver and sensitizing salts. In other words, proceed to produce a non-sensitive plate.

Having obtained a plate coated with gelatine, the first step is to see that the film is hardened. The ferricyanide solution has a tendency to frill the edges and although hardening makes it necessary to soak the plate a little longer, it is better to take the extra time than to risk losing the plate.

## CYANOTYPE PLATES



THE BEACH—BOLINAS BAY

By ALBERT E. DAVIES

If old plates are used the hardening may take place before the final washing, but in the case where the worker has coated the plates himself, it is advisable to let the gelatine set first and to harden afterwards. While any bath may be used, the chrome alum formula is to be preferred. Washing must always follow at this point.

After drying the plate is ready for the sensitizing solution. Any of the numerous formulas for the preparation of blue-print paper may be used. The following, taken from the "British Journal Photographic Almanac," is one of the best:

A:

Ferric ammonium citrate (green) .....	250 grams
Water .....	1000 cubic centimeters

B:

Potassium ferricyanide .....	90 grams
Water .....	1000 cubic centimeters

When ready to sensitize the plates, take equal parts of A and B and filter just before using.

It might be well to note here that ferric ammonium citrate comes in two varieties. The formula given above is for the green salt. If the brown kind is used it will be necessary to modify the formula as follows:

A:

Ferric ammonium citrate (brown) .....	188 grams
Water .....	1000 cubic centimeters

B:

Potassium ferricyanide .....	137 grams
Water .....	1000 cubic centimeters

## CAMERA CRAFT

In other respects the procedure is the same as previously described.

Sensitizing is a simple operation. A tray of ample capacity is selected and the plates placed on the bottom. Solution is then poured on top until the plates are covered. Another way it to use one of the rubber fixing boxes with vertical grooves which will hold the plates in an upright position. When this is done care must be taken to see that every trace of hypo has been previously removed.

The gelatine having been hardened, the solution is slow in penetrating. For that reason three or four hours may elapse before the film becomes saturated. Prolonged immersion is not injurious and that being the case it is well to play safe and allow the plates to remain in the sensitizer as long as possible.

When it is thought that the plates have absorbed sufficient solution they are removed and given a hurried rinse under the tap. In doing this care must be taken not to remove too much of the solution from the film. If this happens, the printed image will be weak and it will be a hard matter to strengthen it.

The object of the washing is to prevent the salts from the bath from crystalizing on the surface. If care is exercised this will not occur. Drops gathering on the surface and drying there favor crystalization and must be guarded against. They may be removed with blotting paper or a tuft of cotton.

While wet the plate is not particularly sensitive to the light and it is possible to conduct the operations up to this point in a yellow or amber light; but in drying, care must be taken not to expose it to a light stronger than one would use for lantern plates.

Drying must take place as rapidly as possible for slow drying is apt to cause crystalization and the subsequent formation of unsightly blotches on the image. Standing the plate on absorbent paper and drying it in a current of warm air is advisable if the proper facilities are available.

The dry plate has good keeping qualities and may be stored for several months without notable loss of its sensitiveness. The printing is done in a frame in much the same way as when making lantern slides by contact, but with this difference; the image is visible at all times and the end point can be readily determined by inspection from the back.

To develop, the plate is rinsed several times in water just as one would do when working with ordinary blue-print paper. It is then dried and when bound with a cover plate is ready for exhibition. If in the final stages of development it appears that the plate is lacking in brilliancy, a few drops of hydrochloric acid added to the rinsing water will do much to improve its quality.

A lantern slide lends itself to few modifications, but a positive intended for framing can be manipulated so as to give many beautiful effects. One of the methods frequently adopted is to place a piece of thin colored tissue paper between the cover plate and the positive. The result is as unique



## CYANOTYPE PLATES



HALF DOME—YOSEMITE

By J. WALTER DOUBLEDAY

as it is striking, particularly if the color selected blends in harmoniously with the blue of the image. Workers in Doretype will recognize the similarity of the two processes at this stage.

A modification of the above which lends itself to even finer effects is to use as a cover plate a piece of glass coated with colored gelatine. Certain shades of yellow will change the blue of the transparency to greens that can be made to match perfectly the dominating note of many a woodland scene, thereby broadening the field of the plate. All in all, it is a beautiful and interesting process and well worthy of the time of the experimenter.

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Choice in color corresponds to the degree of sensitiveness and education possessed by the eye. The barbarian and the infant seize only the most striking notes in the color-gamut. But as age, training, or civilization advances, the individual appreciates the semi-tones, the quarter tones, perhaps even the finer divisions of the chromatic scale.—“The Craftsman.”

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Art deals with things forever incapable of definition, and that belong to Love, Beauty, Joy and Worship, the Shapes, Powers and Glory of which are ever building, unbuilding and rebuilding in each man's soul, and in the soul of the whole world.—Plotinus.



# The Call of the Specialist in Modern Photography

By W. Clement Moore



In an interview which the writer once had with Cyrus W. Curtis of the Curtis Publishing Company, the latter made a remark in regard to special service which has always remained with me. He stated that his company and he himself, always employed special service for every branch of their work if possible, and he felt that much of the success of their concern had been due to the fact that practically all of their work was done each day by persons trained especially for it.

As he has found it in the publishing business, so it is in all lines of trade, business and profession. It is the special study, the special service and the specialist that united will bring about the desired success of almost any legitimate enterprise.

For instance, in the educational world, one may readily note the rapid improvements which have recently been made in schools, teachers and pupils, owing to the extension of the idea of special service for teachers and special classroom instruction for pupils. In the publishing world there has been a similar advance, and today we have hundreds of special class magazines and publications, where a few years ago we had practically none. Ideas and methods have been introduced in publishing and advertising by the many specialists who have been compelled to originate and produce new plans, campaigns and methods, because of the special demand which is growing to quite extensive proportions everywhere. A careful examination of a few of the leading class publications of today will give any person a fair idea of the magnitude of special work and the thousands of branches in which a person may specialize.

Photography therefore is no exception to the rule, and a host of opportunities for specializing in this work might be presented to the live photographer. Of course, if true specialization is to result and success follow, there will be need of an intense study of the special work which one may elect to follow. It is only natural you know, to expect much better work from the specialist than would result if an ordinary photographer should be employed. These standards one must determine to reach and maintain in all of his work; otherwise there is great danger of failure.

"What shall I elect?" This is the most natural question, and in this article a few suggestions will be made for the purpose of assisting one in arriving at a decision of his own. One must make his selection always from his own peculiar fitness for the work. In this he may be guided by his success along similar lines in the past. For instance, let me give a few of

## THE CALL OF THE SPECIALIST IN MODERN PHOTOGRAPHY

the hundreds of branches of photographic art. Add to this list as many other classes as possible; one will be surprised at the size of the list when he is through: Art Study Work, Animal Photography, Amateur Finishing and Developing, Automobile and Auto Part Photography, Animated Life Scenes, Agricultural Photography, Book Illustrating, Baby Photographic Work, Biblical Scenes and Illustrating, Biological Specimen Photography, Botanical Pictures, Building Construction and Operations, Craft Work, Christian Illustrative Work, Childhood Scenes and Pastimes, Common Life Pictures, Collection Photography (antiques, etc.), Colored Photographic Work, Compiling Photographs for all purposes. You will note that the list extends over only three letters of the alphabet, and yet it suggests a number of different lines of photography in which a person may specialize.

Suppose one should select for his specialty a subject like Agricultural Photography. In this case, he would of course need to live in a representative rural district where there would be an abundant opportunity for constantly taking pictures of representative farm scenes and agricultural developments showing the planting, growth, habits and harvesting of the crops. This kind of work is very interesting and if one has a handy camera, one about 4x6, for all of the snap shot work, one will find results highly satisfactory. As a center from which to work, one could of course open a studio in a centrally located town, as large as could be found, surrounded by a fertile farming country. It is not a difficult thing to find towns of three to five thousand people in all of the Eastern states, located in the midst of a rich farming soil; and indeed, the Middle West offers many similar opportunities.

In a large city, one will find a most profitable special lines to be Baby Photography, because, while practically all parents realize the great difficulty which confronts a photographer in doing this work, they do also realize that if the results are perfectly satisfactory they will have walking and talking pictures while the photographer will have as representing his skill, pictures of every member of the family. This work will naturally require considerable study and experience, but it certainly can be mastered and the profits to be obtained from it are fine. When one is satisfied that he has ability for such work he should make it known by advertising cards, announcements and a slogan, somewhat as follows:

HAROLD HETRICH

"Photographer of Babies and Little Children"

At the Sign of The Teddy Bear

Greenwich Avenue

Woodhaven

The above is merely a suggestion and if a regular studio is conducted such a sign or card should also contain an announcement to the effect that photographs of "grown-ups" will also be part of your work. Catchy ideas like the above count and one's slogans and advertising should fit your special line always.



# Over The Jumps

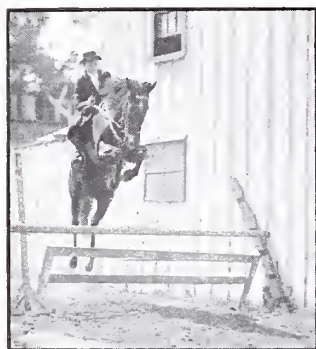
By Capt. C. F. Armstrong



Illustrations by the Author

The accompanying pictures were taken for two reasons: to provide a record of progress of the rider, and to enable the rider to see her own position and thereby be able to correct defects in performance. They proved interesting from a photographic point of view, due to the condition under which they were taken. A 4x5 Graflex was used, with Eastman Commercial Ortho cut films, in combination with a Carl Zeiss Ic Tessar lens, working at f-4.5.

It will be noted from the shadows that they were taken against the light, therefore no detail in the face was obtained or expected. Only three



OVER THE JUMPS

By CAPT. C. F. ARMSTRONG

jumps were made and one picture was taken of each jump, the effort being to get different positions, and the reader can see to just what extent I succeeded.

This horse is about five years old; and, when fully trained will be an excellent high jumper. The first picture shows him going up and clearing the barrier over two feet, the measured height of bar being three feet six inches, a total of five feet, six inches for the jump. The second caught the horse as he commenced to straighten the front legs and draw up the hind legs, while the last shows the clean jumping animal coming down. In each case he cleared the barrier by over two feet. From the study it would appear that such an animal will make a high but not a long jumper, as in this case he had less than fifty feet for a take off.

From a photographic point of view these pictures are interesting and the data is as follows: Bright sunlight, two p. m., August seventeenth, stop f-4.5; Carl Zeiss Ic Tessar lens eight and one-half inch focus, shutter speed one-one hundred and eightieth of a second; pictures taken against the

## OVER THE JUMPS

light from a distance of thirty-seven feet from the bar. Focussed before the jump on a man standing three feet ahead of the bar, to give the moving horse a chance to come into focus over the jumps. The Commercial Ortho cut film was used and proved fast enough for the purpose. Developed in tray, separately, with Eastman A. B. C. Pyro formula.

The speed of shutter was computed beforehand on the basis of the tables with Wellcome Exposure Calculator and reduced from the exposure with a five-inch lens to one of eight and one-half inches. The light, considering the same tables, was judged as between A and B, and calculated to require an exposure of one-one hundred and fiftieth seconds; one-one hundred and eightieth was given, however, to better stop the motion. Only three pictures were taken; as, in the last jump the lady, who had been riding only six months, hurt her hand severely, necessitating a stop for the day.



## More About Callitypes

By Sigismund Blumann



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A Correction and an Apology

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In the article bearing the same title, which appeared in the July issue of CAMERA CRAFT, it transpires that I did not give enough about Kallitype by two important ingredients. To the reader, to John A. Tennant, who was kind enough to interest himself in calling attention to the oversight, and mostly to Mr. Thomson, who must have been greatly annoyed to find himself so seriously misquoted, I offer sincere apologies. The compliment implied by the great number of protests is somewhat modified by the thought that a far smaller number should have been equally enthused had everything been right and they had succeeded in perfecting masterpieces of technique through this medium.

Lest this careless mind again offend I shall copy word for word from "Photo-Mineature," Number 69, postscript, page 507:

Citrate of iron and ammonia .....	25 grains
Ferric oxalate .....	15 grains
Merck's or Mallinicrodt's chloride of copper.....	8 grains
Oxalate of potassium .....	33 grains
Silver nitrate .....	15 grains
Oxalic Acid .....	15 grains
Gum Arabic .....	10 grains
Distilled water .....	1 ounce

Measure out the water, and in half of it dissolve the silver nitrate. While that is dissolving, weigh the other ingredients into

the other half of the water, which should be in a dark colored bottle, such as the ferric oxalate is sold in. Add the chemicals as they are weighed, in the order given, without shaking up the bottle. When all but the oxalic acid have been added (the acid should be reserved for the last), pour in the silver solution and any undissolved crystals that may be remaining; then add the Oxalic acid and without shaking or agitating the bottle, put away in a dark place for twenty-four hours. Stir up the sediment at the bottom, then filter, discarding the gritty particles, after which the gum may be added, the solution now being ready for use."

I would again recommend the reader to follow Mr. Thomson's directions implicitly. After succeeding with these Mr. Thomson himself would probably approve the experimenter's trying ways and modifications of his own devising. I, for instance, do not filter away the sediment, but trust to the medicine dropper and its cotton pledget, as told in my article, to serve the purpose. Also, strictly in confidence, I leave out the oxalic acid. This omission has given me results that all beholders have praised. But I have been able to get a full pound of ferric oxalate in a lump crystal form that apparently is not generally available to others. This form of the chemical does not deteriorate like the flake or spangle and probably is richer in acid.

With the hope that this will once more rehabilitate me in the good graces of reader and all concerned, the experimenter is left to compare his successes and failures and discover where the potential fault lies.



### PARAGRAPHS PHOTOGRAPHIC

Kindly Contributed by Our Readers

**WATCH YOUR OVERHEAD**—Very few photographers realize the importance of their actual overhead, or the importance of knowing what it figures. Known, and known definitely, there is a constant incentive to keep it down and to increase the amount of business done in order that it may be as small as possible in proportion thereto. It is not at all difficult to figure out one's overhead for the simple reason that most of such expenses are made up of rent, insurance, water light, telephone and other like fixed costs. If one's overhead is one hundred dollars a month and the income one thousand dollars for the same period, one knows that every dollar of income must pay ten cents before the difference between the remaining ninety cents and labor and cost of material represents actual profit. One can easily see that with labor and material costs remaining the same, and selling prices also, any decrease in the overhead or increase in the amount of business done will make quite a little difference in the profits.—C. B. M., Ohio.



# CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

Vol. XXVIII

San Francisco, California, August, 1920

No.8

## One Cause of Failure

We have a frequent visitor, a kindly disposed veteran in the amateur ranks, who feels that he has discovered one quite common cause of failure with the beginner in photography. And it sounds so reasonable and conclusive that we want to pass it along as a possible warning to other beginners as a help to still others who, like our friend the veteran, tries to help every beginner with whom he comes in touch. The idea is this: The layman, as he takes up photography, finds that pictures can be taken with cameras varying in form from a simple box to an elaborate instrument somewhat bewildering to the novice, and the pictures will be just the same. He finds that pictures of an object can be secured in bright sunlight or almost darkness, and both will portray the subject. Pictures can be taken in a rain, they can be taken of objects moving at a high rate of speed, they can be taken at any hour of the day, practically any subject can be made to record its image on the sensitive plate. Everywhere there is the widest possible latitude. Even the prints can be made by sunlight or candle-light, and on an endless variety of surfaces. Nowhere does there seem to be imposed any limitations worth considering; at least, that is the subconscious impression. How then can the beginner be made to realize that the work is full of exacting requirements? Only by calling his attention to the difference between the exacting demands of many of the details of procedure and the wide variation in such procedure as it is made to conform to the requirements of decidedly different conditions. It is quite true that pictures are made with exposures ranging from fractional parts of a second to what are more like fractional parts of a day, but that does not mean that the exposure for a particular subject under its own particular conditions can be permitted to vary from a quite narrow standard. One could, for example, take ten cameras, each set with a different shutter speed, go out and find ten subjects or ten sets of conditions under which all ten cameras would produce, in turn, perfect pictures, but to go out and take all ten subjects with one camera would impose the necessity of correctly setting the shutter for each one. By the same rule, making one particular subject ten times, using each camera in turn, would impose again the changing of shutter speeds nine times, assuming that the set of one of the ten was the right one for the subject selected. This illustration is the one our friend, the veteran, uses to convey the ideas to the worker he seeks to enlighten, and he finds it quite helpful. At any rate, there is a well taken point in his contention and we are only too glad to pass it along for what it is worth.

## Please Have Patience With Us

We are late and no one knows it better than we do ourselves. We have had our troubles, are still having them, and expect to have more, unless there is a decided change. It started with the heavy subscription business the first of the year. No available stencil blanks for the addressing machine made the work multiply; and, as our stencils act as our record keys, every complaint meant hours of search. And there were mistakes. New employees and an improvised makeshift system that had to be fitted in with the old, completed the trouble. Then a shortage of paper, then transportation troubles, then illness, and later trouble in the matter of printing conditions, all combined to delay. It seems that every individual reader missed the magazine enough to write in and advise, as was perfectly proper, that his copy was not reaching him. We tried to explain, as far as we could, but even our announcement in the June issue seemed to have been overlooked. And our advertisers, kind as they have been, have had their troubles in adjusting their advertising to our belated dates, troubles that have of course added to our own, despite their kind efforts to be as considerate as possible. We honestly believe that from now on there will be no delay and we hope, for the benefit of that large part of our subscribers who bind their copies, to be able to catch up a couple, at least, of the missing issues. Had it not been that we did not wish to give these appreciative readers a short volume for binding, we would have done as so many of the large publications found it necessary to do, omit or combine issues in order to overcome the handicap imposed by paper and transportation difficulties the past season. Please have a little more patience with us and be assured that we are doing the very best that our capabilities will permit.

## The Next Pittsburg Salon

A preliminary announcement has been made that the Eighth Annual Pittsburg Salon of Pictorial Photography will be held in the Department of Fine Arts of the Carnegie Institute, Pittsburg, Pennsylvania, March third to thirty-first, 1921, inclusive. Prints entered will be passed upon by an impartial and competent committee of selection, and those prints possessing the highest merits in artistic expression will be exhibited. The last day of entry is February fifth and entry forms containing full information and conditions of entry may be obtained by addressing: Charles K. Archer, Secretary, 1412 Carnegie Building, Pittsburg, Pennsylvania, or by local workers direct from this office. It is needless for us to comment upon either the importance of, or the care and attention given this annual event in the photographic world. Every pictorial worker should use his best endeavor to secure representation with a full realization of the honor which his success therein will confer.

# A PHOTOGRAPHIC DIGEST

Edited by H. D'Arcy Power, M. D.

## Soft-Focus Light-Filters for Enlarging and Portraiture

*The British Journal of Photography*, in describing the new vertical self-focussing enlarger, introduced by the Eastman Kodak Company, fer in terms of especial commendation to the particularly neat optical device for introducing definitely graded degrees of diffusion into the enlargements, the device having the form of a flat piece of glass, one surface of which is provided with a series of fine corrugations. A paper giving a short account of the evolution of this device, was read before the Optical Society of America by C. W. Frederick, of the Eastman Kodak Company, should prove interesting. It follows:

In portarit work it is not always desirable that a lens should give sharp definition, because marks and blemishes are brought out too clearly. Lines and similar defects must be smoothed out to resemble more nearly what the casual eye sees under ordinary white light. This is usually done by retouching the negative or by employing a lens with soft definition, or both. Soft definition may be obtained in many ways, but its character makes a great difference in the appearance of a picture. It may be produced by merely throwing the lens out of focus, but the effect is not pleasing because the definition is obliterated too completely. We want something that will leave the main features of the picture clearly sketched and at the same time smooth out or obliterate unimportant or disfiguring details.

The usual method of producing soft definition is to modify the design of the lens so that it will fall off in spherical aberration. Thus the image formed by light passing through an outer zone of the lens will not be at the same distance as that formed by light passing through the central portion of the lens, and inter-

mediate images will be formed at intermediate points, so within a certain range a part of the light will form a sharp image and the remainder a series of superposed fuzzy images. The effect aimed at is definition with a mellow outline.

It may be readily understood that the character of the effect will depend upon the ditsribution of light in the sharp and the fuzzy images, which distribution may be influenced by lens type and different adjustments as to spherical aberration. But the nature of spherical aberration places certain limitations upon the problem. We cannot, for example, adjust the aberration of a lens so that three-fourths of the light will form a sharp image and the remaining one-fourth a diffuse image; thus we are cut off from many effects that may be desirable. It usually happens that there is too much light in the diffuse images, so that double lines appear in certain portions of the picture where there is a great change from white to black, as a white collar against a black coat or a well-lighted cheek against a dark background.

The natural distribution of light due to spherical aberration may be modified by interposing an opaque diaphragm with a small central opening to allow the sharp image to be formed, and radial openings to control the amount of light in the diffuse image. But such a device has the disadvantage of slowing down the lens to an inconvenient degree. However, it was a study of the action of such a diaphragm that suggested the new diffusing screen which is the subject of this paper.

The necessity for a means of diffusion independent of the lens arose in connection with a new enlarging camera which was being developed. This camera was fitted with a device which kept the lens automatically in focus as the enlargement was varied. It was to be used in enlarging portraits, and it was necessary that both



sharp definition and soft definition could be obtained at will. It would have been an easy matter to design a mount for the lens which, by unscrewing one component, would alter the relative positions of the lens elements and introduces spherical aberration. But this would cause a change in the focal length of the lens, and any change in this would prevent its proper functioning. Thus it was necessary to find something independent of the lens.

What at first appeared to be a hardship led eventually to emancipation. Many things were thought of and tried. Diffraction was invoked and rejected. Semi-transparent material such as cloth and ground glass were tried, but found to slow down the lens too much. Glass slides, coated with transparent varnish giving an undulatory surface, failed to prove satisfactory, because the diffusion was not controlled, some of the light being scattered so far that the entire picture was flattened.

We were finally led to try glass discs with fine grooves polished in them. If the grooves were accurately cut the diffusion would be controlled, so that no ray of light could deviate more than a limited angle, a few minutes from its undisturbed path, and thus the picture would not be flattened by stray light. Of course, the smoothing out of fine detail will give a certain appearance of flattening which cannot be avoided, but this is not noticeable in portrait photography. The discs were placed directly in front of the lens, and, being entirely transparent, caused no slowing down of the combination.

A great many experiments were tried with different devices for cutting the grooves, different depths and widths of grooves, and different patterns cut upon the disc. The possibilities were endless, and each change had an individuality of its own in its effect upon a photograph.

First we tried concentric circular grooves cut upon the outer portion of the glass disc, leaving the central portion clear for about half the aperture of the lens. The light passing through the central portion of the screen would give a sharp definition, and that passing through the outer portion of the screen diffuse definition. Then by merely stopping the lens the amount of

light in the diffuse image could be reduced, and the relative proportion of light in the sharp and diffuse images altered at will. But this screen proved unsatisfactory, because it was found to give double lines along boundaries of strong contrast, there being too much light in the rays of maximum deviation. Also the circular grooves were hard to cut.

To get around these difficulties we changed to cylindrical grooves ground in intersecting linear grooves. It was expected the intersecting grooves would diminish the area of maximum slopes, and thus reduce the amount of light of maximum diffusion. But this, too, was a failure, as it was found the successive systems of grooves simply superposed themselves under the glass surface, whether flat or undulating. At the intersection of two grooves the glass was abraded to twice the depth for one groove, and no advantage was obtained.

The grooves could be readily examined by means of interference fringes. When the ground surface of one disc was placed in contact with the unground surface of another, interference bands would appear, giving a very beautiful contour map of the whole system of cuts. When seen under a mercury lamp these contour lines became very sharp indeed, making it easily possible to estimate the depth of the cuts to one or two millionths of an inch.

Finally, after many experiments, a screen was settled upon in which there were three systems of linear grooves ground at angles of one hundred and twenty degrees from each other, and the grooves of each system were spaced at equal intervals apart, but were progressively of increasing depth from the centre outwards. The finished pattern showed hexagonal areas of clear glass constituting about two-thirds of the area of the entire screen. Thus two-thirds of the light was allowed to form a sharp image, and the remaining one-third a succession of soft images varying in diffuseness according to the depth of the successive grooves of the screen. The screen gives soft effects without a trace of double lines, and at the same time it gives definition that does not fail under a magnifier. Its effects may be slightly modified by stopping down the lens.

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The results obtained with this screen were very good indeed, and distinctly better than anything that could be done with a soft focus lens. In fact, they were so promising that we hastened to apply for a patent upon the idea.

The screens are capable of many unusual effects. One screen was ground with a single system of parallel grooves, which when used with the diffusion vertical in a portrait had a tendency to make the face appear longer, or if the diffusion were horizontal the face would appear broader. In landscapes it gave similar effects. If the diffusion were vertical the corresponding detail, such as grass or tree trunks, would remain sharp in the picture, while horizontal detail as limbs and twigs of trees would be fuzzed out. Thus it is possible that with proper care effects could be obtained similar to those seen in the paintings of Corot.

A rectangular system of grooves gives a very satisfactory screen for landscapes, and also for portraits. If placed with the diffusion at about forty-five degrees the detail of a landscape will be streaked out in a way suggestive of etching. It is possible that a rectangular system with one set of grooves deeper than the other would be found useful.

One screen of the hexagonal type was ground with one system of grooves strong and the other two weak, but we have not had time to give it a serious test. It might be used to alter the length of a face, or might be turned so as to bring out better detail in hair, or to alter the appearance of cloth in a dress or coat. A satin dress should preserve its peculiar sheen much better if the greater diffusion were directed parallel to the grain of the cloth.

A fundamental peculiarity of all the screens consisting of systems of straight lines is that the diffusion occurs at right angles to the various systems, and does not occur equally in all directions. If a small hole be pricked in a negative its image in the enlargement will be seen to consist of a point with short radial streamers extending out from it in a star-like pattern. This is probably beneficial in helping to preserve the contrast between the blacks and whites in fine detail, as one set of streamers is likely to coincide

closely with the direction of the detail, thus adding to the already preponderant light in the sharp image, while subtracting nothing from the softening effect upon the picture.

While most of our efforts have been directed towards developing a diffusing screen for enlarging cameras, it is possible that they may be useful also in direct portrait photography. A few large screens for this purpose were ground at haphazard, and tried in a tentative way. The results seemed to indicate that the problem of direct taking was somewhat different from that of enlarging, and would require a different type of screen. In direct taking the screen causes the white areas to encroach upon the black, producing an effect similar to halation, while in the case of enlarging the black areas encroach upon the white and do not produce the effect of halation. Thus in direct photography a white collar will irradiate upon a black coat and spoil the appearance of the picture, while in an enlargement the black coat will encroach upon the white collar with no unpleasant effect. However, by limiting the diffusion and modifying its distribution it is quite likely that a satisfactory screen may be developed for direct photography. At least the action of the screen in this case is similar to that of the soft focus lenses now in use, and the greater adaptability of the screen should be in its favour.

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### Unsharp Negatives

There is considerable difference of opinion as to what constitutes sharp definition in a photographic image. Many people are satisfied with a result which others would consider undesirably soft, and for this reason it is difficult to judge of the capabilities of a lens from the photographs produced by the average user. Not long ago a question arose between the buyer and seller of a lens upon this point, the purchaser returning the lens on the ground that it was useless for his work, while the seller was so certain of its quality that he submitted prints to us for our opinion, which was, that the definition, judged from the optical, and not the artistic point of view, left much to be desired.

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While there is no absolute standard of sharpness, it is, for the purpose of calculating depth of definition, generally accepted in this country that an image in which the smallest line or dot is not more than one hundredth of an inch across is considered sharp. But this is far from being so from an optician's standard; the Continental one of one two hundredths of an inch being as low as can be accepted. Many excellent anastigmats of large aperture, say  $f-3.5$ , do not give such definition until reduced to  $f-6$ , or even smaller, so that although satisfactory for direct portraiture, they are apt to be disappointing if enlargement be resorted to. Given a sufficiently finely ground focussing screen it should be possible to read the smallest type in the advertisement pages of a magazine printed upon "art surfaced" paper, the lens being at such a distance as to give an image one-fourth the scale of the original. If this can be done, and yet it not be possible to obtain the same definition upon a slow plate, we must look in another direction for the cause of the fault. This will probably be found in a want of co-incidence between the focussing screen and the plate, and, if the construction of the dark slide will permit, a second trial should be made, this time discarding the usual screen and focussing upon a piece of ground glass, which is put into the slide in the same way as an ordinary plate. If a plate be now exposed, and the resulting image is satisfactory, the register between the focussing screen and dark slide needs adjusting. A very useful depth gauge for this purpose may be made from a stout strip of wood rather longer than the width of the focussing screen, with an ordinary carpenter's screw driven through the center. Resting the wood upon the screen frame the screw is turned until it just touches the ground surface of the glass. A glass plate, an old negative will do, is put into the dark slide and the gauge is placed across the frame, care being taken not to shift the screw. If the point just touches the glass, then slide and screen are in correct register. If not, the difference must be noted and the ground glass packed up or sunk until it agrees with the plate. It sometimes happens with cameras to

which extra slides have been fitted that these are not quite in register, so that negatives taken in them with large lens-apertures are not as sharp as those taken with the original slides.

Correctness of register being established and unsharp negatives still resulting, the natural inference is chromatic aberration in the lens; that is to say, those rays which are most energetic in forming the image do not come to focus in the same plane as those which produce the greatest visual effect. To detect this defect it is only necessary to fix up a strip of printed paper at an angle of about thirty degrees to the axis of the lens, and after underlining, or otherwise marking a line of type in the centre, to focus this line carefully and expose a plate. If the marked line appears to be the sharpest in the negative there is no chromatic aberration, but if a line nearer to or farther from the lens is the sharpest, the lens is not properly corrected.

Sometimes the camera is at fault. If the focussing rack work is worn the back frame may move slightly when the slide is inserted, or the swingback may not be properly secured. The remedy is, of course, obvious. When using thin plates, especially in sizes over half-plate, too strong a spring on the partition may bend the glass sufficiently to impair the definition. This, however, can be detected by means of the depth gauge already described. Also unsharpness is often due to the improper use of orthochromatic screens. These should always be put in position before focusing, even if of good quality, while those of inferior make will often impair the definition, even if this precaution is taken. The definition of a lens may be seriously affected by a fall or blow, which imperceptibly distorts the mounting and thereby puts a strain upon the glass, while too tightly screwing up the counter-cell of lenses which are not burnished into their cells will have the same effect. It may be as well to point out that over-exposure should be avoided when making test negatives, as a fully-exposed negative always appears less sharp than one which is slightly under-exposed.—*British Journal of Photography*.



# INTERNATIONAL PHOTOGRAPHIC ASSOCIATION

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J. H. Winchell, Chief Album Director, R. F. D., No. 2 Painesville, Ohio.

Fayette J. Clute, General Secretary, 413-415 Claus Spreckels Building, San Francisco.

Answers to inquiries concerning membership and membership blanks will be supplied by the State secretaries. Album directors are at present acting as State secretaries in such of their respective States as have as yet no secretaries.

John Bieseman, Director Post Card Division, Hemlock, Ohio.

James B. Warner, Director Stereoscopic Division, 413-415 Claus Spreckels Building, San Francisco.

A. E. Davies, Director Western Lantern Slide Division, 1327 Grove St., Berkeley, Cal.

Arthur H. Farrow, Director Eastern Lantern Slide Division, 51 Richelleu Terrace, Newark, N. J.

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4799—Howard J. Hite, 1141 S. Fourth St., Terre Haute, Ind.

$3\frac{1}{4} \times 5\frac{1}{2}$  and  $5 \times 7$ , on developing paper, of landscapes, marines, and miscellaneous; for animals or birds, mountain scenery, historical and notable persons. Class 1.

4800—Wm. R. Velte, 743 State Ave., Kansas City, Kans.

$3\frac{1}{4} \times 4\frac{1}{4}$ , on developing paper, of Colorado mountain and snow scenes, etc. Desire prints only. Class 1.

4801—Gustave Korthals, 605 Sherman St., Milwaukee, Wis.

$2\frac{1}{2} \times 4\frac{1}{4}$ , on developing paper, of Northern Wisconsin views, etc., for views from different states, especially Western, landscapes, marines, etc. Class 2.

4802—Albert C. Groetschel, 831 S. 30th St., Omaha, Neb.

V. P.,  $4 \times 5$  and  $6\frac{1}{2} \times 8\frac{1}{2}$ , on developing paper. Class 3.

4803—Abner J. Starr, Ross, Ohio.

$4 \times 5$  and  $3\frac{1}{4} \times 5\frac{1}{2}$ , on developing paper, of miscellaneous outdoor scenes; for same. Class 2.

4804—William P. Mantai, 2939 A St., Philadelphia, Pa.

$2\frac{1}{2} \times 3\frac{1}{4}$ ,  $4 \times 5$  and post cards, on developing paper, of landscapes, aeroplanes and buildings; for the same and miscellaneous. Class 1.

4805—I. J. Livingston, Neshoba, Miss.

Class 3.

4806—Edw. L. Gilroy, Box 200, Aurora, Ill.

$3\frac{1}{4} \times 5\frac{1}{2}$ , on developing paper, of landscapes, river views and some figure studies; for same, also draped or undraped figures in classic or artistic pose. Class 1.

4807—Paul B. Irwin, Rio Vista, Calif.

$2\frac{1}{4} \times 3\frac{1}{4}$  and  $3\frac{1}{4} \times 5\frac{1}{2}$ , on developing paper, of river scenery. Class 2.

4808—Dean P. Holmes, 11 W. Second St., LaJunta, Colo.

$2\frac{1}{4} \times 3\frac{1}{4}$ ,  $3\frac{1}{4} \times 5\frac{1}{2}$  and  $5 \times 7$ , on developing paper, of fires, wrecks, mountain scenery, and miscellaneous; for views of general interest, especially beach scenes, bathers, etc. Class 1.

4809—William Kildoye, Box 306, Yokohama, Japan.

Class 1.

4810—Crescenz L. Smith, 251 Union Ave., S. E., Grand Rapids, Mich.

$3\frac{1}{4} \times 4\frac{1}{4}$ ,  $4\frac{1}{4} \times 6\frac{1}{2}$  and  $6\frac{1}{2} \times 8\frac{1}{2}$ , on bromide and developing paper, of landscapes, genre and child studies; for like work or anything of interest. Class 2.

4811—Wm. J. McGowran, Ferrocarril, Tocopilla, Chile.

Stereoscopic views and lantern slides. Class 2.

4812—John S. Bowman, 432 Hammel St., Harrisburg, Pa.

$2\frac{1}{2} \times 4\frac{1}{4}$  and  $4 \times 5$ , on developing paper, of landscapes and groups; for general work. Class 1.

4813—Leo E. Fitzgerald, R. F. D., Charlton, Mass.

$2\frac{1}{4} \times 3\frac{1}{4}$ , on developing paper, of landscapes, buildings, animals, etc.; for mountain scenery, historical and landscape subjects. Class 2.

4814—Thomas Murphy, care Pen. Tel. Co., Tampa, Fla.

$4 \times 5$ , on developing paper, of landscapes. Class 3.

4815—Arnold Phillips, 99 Howich St., Launceston, Tasmania, Australia.

$4\frac{1}{4} \times 6\frac{1}{2}$  and smaller, on developing paper, of Tasmanian landscapes and bush scenes, genre, sunset cloud scenes and aeroplanes; for large American buildings and places of interest, portraits, scenes and aeroplanes. Class 1.

4816—Abner J. Starr, Ross, Ohio.

$4 \times 5$  and  $3\frac{1}{4} \times 5\frac{1}{2}$ , on developing paper, (no cards), of miscellaneous and outdoor scenes; for same. Class 2.

4817—J. J. Kimmel, Plainville, Conn.

Class 3.

4818—Simon Miller, Box 229, Archbald, Pa.

$3\frac{1}{4} \times 5\frac{1}{2}$ , on developing paper, of landscapes, portraits, family groups, etc.; for anything of interest. Class 2.

4819—Chas. P. Roberts, 5667 La Mirada, Los Angeles, Calif.

$5 \times 7$  or smaller, on developing paper, of pictorial work; for same. Class 1.

4820—Wm. F. Bevan, Box 6, Romney, W. Va.

Post card, cabinet and  $5 \times 7$ , on developing paper, of portraits and landscapes; for same. Class 2.

4821—Ivy Morgan, Sylvan Grove, Kans.

$2\frac{1}{2} \times 3\frac{1}{4}$ ,  $3\frac{1}{4} \times 4\frac{1}{4}$  and  $3\frac{1}{4} \times 5\frac{1}{2}$ , on developing paper, of landscapes chiefly; for miscellaneous subjects. Class 1.

4822—Lawrence McClelland, Amegard, N. Dak.

$3\frac{1}{4} \times 5\frac{1}{2}$  to  $6\frac{1}{2} \times 8\frac{1}{2}$ , on developing paper, of landscapes, railroad scenes, farm scenes, etc.; for landscapes, seascapes, mountain scenes, or anything of real interest. Post cards only. Class 2.

4823—J. H. Enloe,  $7\frac{1}{2}$  N. Broadway, Oklahoma City, Okla.

Mostly post card size, on developing paper, of views; for same line. Class 1.

4824—Harry P. Hartson, General Delivery, White Plains, N. Y.

Class 3.

4825—George Miller, Jr., 24 East 55th St., New York, N. Y.

$4 \times 5$ , on developing paper, of Graflex pictures, landscapes, general outdoors, N. Y. and other city views, etc.; for portraits, foreign, city and general outdoors views. Class 1.

4826—O. H. Hornung, 2466 Maui St., Honolulu, Hawaii.

Prints up to  $8 \times 10$ , lantern slides, and bromide enlargements, of general Hawaiian scenery, volcano views, beach scenes, natives, airplanes and balloons; for views of general interest and figure studies. Class 1.

4827—Christian Nicholas Walker, Chief Yeoman, U. S. S. Hopewell (181), Care Postmaster,

New York, N. Y.

$3\frac{1}{2} \times 4\frac{1}{4}$ , on developing paper, depicting life aboard destroyers, general views of U. S. N. battleships, destroyers, subs, etc.; for views of ports, landscapes and farm life of the West or foreign countries. Class 1.

## CAMERA CRAFT

- 4828—Robert F. Dickerson, 603 W. Leigh St., Richmond, Va.  
Class 3.  
4829—Daniel Holcomb, R. F. D. 2, Cogar, Okla.  
2¼x3¼ and 4x5, on various papers and of various subjects; for all kinds. Class 1.

### RENEWALS.

- 1771—Burton H. Allbee, 724 East 22nd St., Paterson, N. J.  
Lantern slides, particularly of historic buildings, picturesque old houses, and similar structures; for same. Class 2.  
2645—Hugo H. Schroder, 303 E. State St., Bettendorf, Iowa.  
2¼x3¼ to 5x7, lantern slides and enlargements of birds, nests, eggs, wild flowers and nature subjects; for same, and wild animals. Class 1.  
3394X—George B. Ley, Box 101, Firestone, Park Sta., Akron, Ohio.  
Post cards of anything of interest, except nude studies; for same. Class 1.  
4126X—John Bieseman, Box 136, Hemlock, Perry Co., Ohio.  
Mostly post cards, some 4x5 and 5x7, on developing paper, of outdoor portraits, landscapes and watercolors, genre, flowers, birds, and other outdoor subjects; for same. Class 1.  
4427—George W. Fry, La Honda, San Mateo Co., Calif.  
Any size above 3¼x4¼, of general interest. About October first, will mail out an album containing samples of all prints available for exchange. I. P. A. members who would like to see this album, please send in names at once.  
Class 2.  
4661—T. L. Budd, Watervidet, Mich.  
Prints of landscapes and art subjects; for same. Class 2.  
4677—Arthur Craff, R. F. D. 1, Lockridge, Iowa.  
2¼x4¼, on developing paper, of farm scenes, landscapes, and a few historical views; for anything interesting. Class 2.  
4682—A. G. Cronacher, 1065 S. Howland St., Kenosha, Wis.  
5x7, of landscapes and marine views; for same. Class 1.  
4761—W. A. Turner, 3006 Landis St., Pittsburg, Pa.  
Until further notice I desire to exchange only prints in the 2¼x3¼ size, of bathing girls, genre, landscapes, old mills, etc., on glossy paper. I desire and will send out only first class work.  
Class 1.  
**CHANGE OF ADDRESS**  
4646—Carl Brame, Le Roy, Ill.  
(Was Eagle Pass, Tex.)  
4726—B. C. Eddy, 625 Central Bldg., Los Angeles, Calif.  
(Was Oakland, Calif.)  
4752—Fred C. Gorman, Swan Creek, Mich.  
(Was Saginaw, Mich.)

## OUR BOOK SHELVES

### "The Fundamentals of Photography"

In this book, the author, the well known authority on matters photographic, Dr. Mees, has given us the theory and the working principles of photography in a clear and concise form and in the simplest possible language. Numerous diagrams and illustrations help largely in making the work informative and instructive without needless waste of words. Simple as it all is, there is much between the two covers that will be new to even the well-informed for the simple reason that Dr. Mees has not followed the too common practice of repeating the matter from other elementary books, but has incorporated in his work the "reason why" for the many puzzling, or at least little understood, phrases of photographic phenomena. The book, published by the Eastman Kodak Company, has the same high value as others from the same source and is more than worth the dollar at which it is sold. It can be ordered direct or through your dealer and should not be overlooked by those desirous of informing

themselves correctly concerning the theory on which photography is based.

### "The Gentle Art of Photography"

Under this title, with the addition: "A Sane Man's Guide to a Hobby," as a subtitle, the author has given us a book that is really a guide to what a sane person really desires to know about the photography that is suited to his purpose. The book is intended for those who would take up photography if they had a little clearer idea of what they could expect, and it is also for those who have a camera but feel that they are not getting the satisfaction and enjoyment that they should from it. The book is new; it is instructive and readable; it is direct and to the point. None of the one hundred and sixty pages are wasted and the illustrations are all good examples of snapshots taken under ordinary conditions with an amateur's hand camera. The book sells for seventy-five cents a copy, postpaid, supplied by Hirsch & Kaye, 218 Post street, San Francisco, California.

## CLUB NEWS AND NOTES

Club Secretaries and others will oblige by  
sending us reports for this Department

### California Camera Club

With the appearance, during July, of the new bulletin of the Pictorial Photographers of America, the CALIFORNIA CAMERA CLUB finds itself represented in the national society by F. Bauer, Frank Flannery, John A. Hickey, Dr. E. O. Jellinek, Charles A. Love, Frederick H. Morley, Edward Ross Shirley and Walter H. Stephens.

With increased activity, both photographically and socially, the Club calendar grows in interest each month. The one for August listed, as the principal events, an interesting exhibition of photographic enlargements, by Anson Herrick, a local pictorial worker; the monthly business meeting; the selection of the winning prints in the Members' Competition; an illustrated talk by H. S. Lawton, on the Feather River Canyon; an outing to picturesque Coyote Point, followed by a swim at San Mateo Beach; an All-Members' exhibit at the club rooms; a whist party with photographs by Paul G. Greve as prizes; a hike to Big Lagoon; a club dance; a demonstration on Photo Engraving and Three Color Process Reproduction, by Carl Abell; an illustrated lecture by P. J. Haltigan, reading clerk of the House of Representatives, and a moonlight outing to the Greek Theater.

### A Noteworthy Exhibit

At the Oakland Art Gallery, Municipal Auditorium, an exhibition of Pictorial Photography in Oil from the Allen Art Studios, was held the latter part of September and the first part of October. Some sixty pictures comprised the exhibition, made up of tree studies, seascapes and the nude, with a wide range of effects. And speaking of the latter, the catalogue says: "There is, of course, a fine distinction between the non-essential nude and the true nude. The non-essential nude is a picture which has no message to speak, while the true nude gives a vision of beauty, both

physical and spiritual—two great needs of humanity." Albert Arthur Allen, painter and pictorial photographer, finds a wide sale for his nude and landscape studies, particularly in the form of the Alo Studies, procurable in book form.

### Officers Elected

.... The Associated Camera Clubs of America recently elected the following officers for the term ending September twentieth, 1921. President, Julius F. Graither; Secretary, F. Bucher, Treasurer, Herbert C. Brewster, all of Newark, New Jersey, and Vice-President, Todd Hazen of Portland, Oregon. The organization now comprises twenty-five active clubs, and these maintain an interchange for print exhibitions and another for lantern slide sets, both of which are being routed for the 1920-21 season. Information can be secured by addressing: Louis F. Bucher, Secretary, 678 Broad Street, Newark, New Jersey. The clubs making up the Association are as follows: Photographic Society of Baltimore; Boston Y. M. C. A. Camera Club, Chicago Camera Club, Photographic Society of Cleveland, Detroit Overseas Camera Club, Grand Rapids Camera Club, Dartmouth Camera Club, (Hanover, New Hampshire), Elysian Camera Club, (Hoboken, New Jersey), Indianapolis Camera Club, Kansas City Camera Club, Southern California Camera Club, (Los Angeles), Newark Camera Club, New Britain (Connecticut) Camera Club, New Haven Camera Club, Pictorial Photographers of America, (New York), Orange (New Jersey) Camera Club, Columbia Photographic Society, (Philadelphia), Photographic Society of Philadelphia, Portland (Maine) Camera Club, Oregon Camera Club, (Portland), Reading (Pennsylvania) Camera Club, California Camera Club, (San Francisco), St. Louis Camera Club, Waterbury (Connecticut) Camera Club and Yonkers (New York) Camera Club.



# THE AMATEUR AND HIS TROUBLES

Conducted by Fayette J. Clute

## Making Cloth Fireproof

Our New York correspondent must understand that there is no known method of rendering fabric actually fireproof; all that can be done is to so treat the cloth that it will simply smoulder and not burst into flame. It must also be remembered that the protective quality of any treatment gradually decreases and the application should be repeated from time to time. One recommended treatment consists of immersing in a solution made by dissolving two ounces of borax and a pound of ammonium phosphate in five quarts of water, wringing out and then hanging up to dry. Another good formula is that recommended for treating tents by "Hensley's Twentieth Century Formulas," with the glue water omitted, which reads as follows:

	By Weight
Water .....	100 parts
Ammonium sulphate, C.P.....	14 parts
Boracic acid .....	1 part
Hartshorn salt .....	1 part
Borax .....	3 parts

Boil the water, put the ammonium sulphate into a vat, pour a part of the boiling water on and then add the remaining materials in rotation. Next follow the rest of the hot water. The vat should be kept covered until the solution is complete.

## How One Man Learned His Lesson

His name is not Brown, but we will call him that. He was always running to another friend, let us call him Jones, with his tale of woe about stains on his prints. Jones tried to help him, but it seemed time wasted. Finally, on the plea that what was wanted was some nice warm blacks and pyro was the proper thing, he got Brown to use a pyro developer for his gaslight prints. And a howl went up that could be heard for three blocks that intervened between the two homes. Never such a crop of stains before. So Jones goes over and starts in to show Brown how stains are

produced. He takes a print out of the developer and holds it in a strong light while he examines it, decides it is done, then chucks it in the fixing bath, explaining that so doing allowed the developer in the emulsion to work on the light exposure given and stains will result despite the care given to keep moving a few seconds upon immersing in the fixing bath. Then he takes another out of the developer, one that is a little wrinkled, and without exposing to light, simply exposes to the air a few seconds, and then into the fixing bath. This will have stains because developer oxidised in the emulsion unevenly owing to the different amounts of solution covering different portions by reason of the wrinkled surface. Even a flat surface would secure stains, but perhaps not so well outlined. Then he takes another developed print and puts it at once into the fixer, but in such a way that a large bubble of air is confined underneath. That spot covered by the bubble has the same air bath as the previous print held in the hand, and a spot results. Then he takes another developed print and slides it into the fixer in such a way that one corner rests quite in contact with the print last put in. The fixer does not penetrate at that point and in the meanwhile a stain is developing. Then he pours some of the developer into the fixing bath, explaining that is what happens when a little developer is carried into the fixing bath with each of a lot of prints, and putting in a newly developed print he gets another nice brown stain, almost uniform, over the entire surface of the print. While these four or five prints are washing he has Brown mix up a new fixing bath, while he exposes another print. This time the print is judged for completion as it lies in the developer; in reality, knowing that it was rightly timed, Jones simply took it out when it seemed to stop developing, as a rightly timed print will.

## CAMERA CRAFT

This was rinsed about in a tray of clear water and then into the new fixing bath, with a little swishing about to make sure that no bubbles or pockets of air were in contact, and the result was a stainless print a few minutes later. Then Brown makes a print in the same way with like results. He is told that if he can use pyro without getting stains he can use any of the other developers, and as he has learned how to make stains, he ought to know how to avoid them. And Jones thinks he does know because that was some time ago and there's been no howling to disturb the peace of the neighborhood.

### Make Some Night Pictures

This is perhaps the best season of the year for this class of work. If one is going to give a few lengthy exposures, darkness comes early enough to permit of the work being done before the hour becomes so late that a part of the lights are turned off. The idea prevails quite generally that town and city scenes are the only kind that are suited to night work, but this is somewhat of a mistake. True, the illumination that the open door or lightly curtained window of a country residence affords, is hardly sufficient to insure good results, but it is not at all difficult to replace what would be an inordinately long exposure with a quite brief one made by a flash fired inside the door or window that may be playing an important part in the picture. In fact, it would seem that one could easily secure a street lamp effect by firing a flash at the proper height but just outside the range of the lens. By firing a small flash in each room on the near side of a building, the effect of a brilliantly lighted residence could be easily secured. A standing automobile can be so placed as to suggest both its use as the means of making a visit and the effectiveness of its lights in illuminating the doorway at which the visitors are met by the host. Or, returning to the use of a flash, and a flash sheet or two ought to be about the right thing, we could have the departing guest taking leave of the host at the open door, silhouetted against the supposed lamp-light illumination within. But returning to the regular thing, the city resident really has the advantage although his subjects may not have the attractiveness of the quiet,

shady streets of the small town. In fact, it would seem that subjects can be found in any locality if we will but look for them. All that is needed is a little ability in the matter of selection and the proper treatment when a good subject is found. As to exposure, it is practically impossible to give any advice that will be of any value because the conditions vary to such an extent. Fifteen minutes may be sufficient in one case and in another an exposure of ten times that duration may be required. One should, however, try to avoid the inky blackness that some seem to find the inkiness in presenting as a representation of a night scene. The negative should have not a little detail; and then, if increased blackness is thought more effective, it is only a matter of deeper printing. On the other hand, with little or no detail secured, blackness is not avoidable without a foggy, smoky result that is undesirable. A few trials will teach one more concerning length of exposure than would pages of suggestions on the subject.

### Making Corks Acid Proof

Some years ago a subscriber asked us how to make corks less inclined to decomposition when used in bottles containing acids. We gave him the following instructions, based on the recommendation of a foreign exchange: One-half ounce of gelatine is swelled in some water and then dissolved in enough warm water to make sixteen ounces; to which six drachms of glycerine are added. This must be kept at a temperature of one hundred and thirty-five degrees Fahrenheit, while the corks are soaked therein for some time. They are next allowed to dry and then placed in a bath consisting of five ounces of vaseline and sixteen ounces of paraffine, which must be kept at a temperature sufficiently high to maintain the paraffine in a melted condition. Another plan is to add a small amount of ammonium bichromate to the first solution and then expose the corks to sunlight for some time, thus rendering the gelatine coating insoluble and making the second bath unnecessary. We were advised by our correspondent, a few months later that the process worked admirably, but he failed to say which one of the two plans he had used.

## NOTES AND COMMENT

**A Department Devoted to the Interests of our Advertisers and Friends**  
**In it will be found much that is new and of interest**

**Reported by William Wolff**

All the San Diego dealers report business as very good.

William H. Wonfor, the English bird photographer, is with Leon Dawson at Santa Barbara.

Frank Aston of San Luis Obispo was in Los Olivas recently, photographing a big ranch.

John T. Hall of the same place is as busy as ever, and John works, I'll say.

Mrs. Dora Warren at Paso Robles is doing some very fine work in portraiture.

H. Vassar is running two studios in Salinas now.

Ossian Hagman of Watsonville, has moved into his new and up-to-date studio.

Wm. Horwarth of San Jose, has just returned from an Eastern trip, stopping at the Grand Canyon on his way back.

W. F. Burhaus, formerly of Modesto, is now operating the Tucher Studio in San Jose.

Mr. Green, the new owner of the Riverside Studio, Reno, Nevada, spent a few days in San Francisco recently, "honey-mooning."

Roy Curtis has a well equipped finishing plant in Reno.

The Reno Studio recently added an Eastman Projecting Enlarger to its already fine equipment.

### **The Hammer Advertisement Last Month**

Our being behind with our date of issue last month resulted in the announcement of the Hammer Dry Plate Company being a little untimely for some sections of the country. Hot and humid weather conditions were not prevailing in all sections during the middle of September and calling attention to the excellence of Hammer plates under those conditions was much like advertising overcoats as warmth conservers during mid-summer days. Such advertising would not detract from the value of the overcoats and it might be

urged that the reader might appreciate the cooling effect, just as the plate user might be supposed to appreciate the suggestion that any trouble he may have experienced, still fresh in his memory, could be avoided next year. Hammer plates are certainly worthy of praise on this score as well as on a number of others; in fact, they are exceptionally trustworthy and dependable under all conditions. Find a user of Hammer plates and you will find a man who is consistent in the matter of the material he uses, a man who uses what he has found best suited to his purpose, and uses it continuously. He is neither the man who is chopping around from one make to another because none of them satisfy him or the man buying any brand that is offered because all of them are satisfactory to him. There are several special brands of Hammer plates and one will do well to acquaint himself with them and their uniform good quality.

### **Send That Stamp**

The Japanese Water Color Company, Rochester, New York, advertise on another page that it will send an illustrated catalogue for a two cent stamp. It is full of useful information and now that the winter months are upon us, the camera worker with a receptive mind will welcome the excellent suggestion that it makes. And as he will learn from the circulars also sent, these colors are not a stereotyped "set" or "outfit" put up for convenience in manufacture and marketing; but, while they can be bought in made up selections ranging in price from forty-five cents to four dollars, they are of wide application, of the highest quality and of undeniable merit. They are used in art and technical schools, used by architects and draughtsmen, used by government departments and used by motion picture producers. The ease with which they can be used is re-

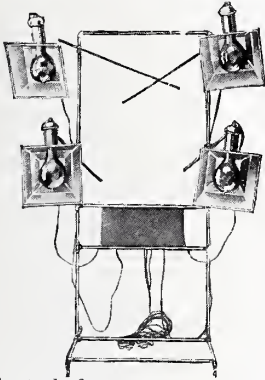


## NOTES AND COMMENT

markable and their use assures pleasant results, so that one is neither wasting the color or spoiling his prints by giving the work a trial as he should.

### A Convention Winner

The utility that won an unusual amount of interest and approbation from the photographers attending the last National Convention was the Breiloff Universal Studio Lamp, shown by the Prosch people. The strength and uniformity of the light, the ease with which it could be controlled and ad-



justed for any style of portrait or any form of group work, its general utility and efficiency, commended it to all who saw it in operation. The Breiloff Spot Light also came in for its share of appreciation because of its value in the making of fancy lightings, a line of work that every portrait man realizes is made more easy of achievement by having the proper equipment. Our readers should get in touch with this firm and acquaint themselves with the excellent line of photographic utilities turned out. Address Prosch Manufacturing Company, Department S, 61 Fulton Street, New York, N. Y.

### The Wynne Infallible Meter

About the best thing we can offer as proof of the good quality of the Wynne Infallible Meter is the uniformity with which it ends the search of the average worker for an exposure determining device that is convenient and dependable. When you find a worker using the Wynne Meter, you find one that is satisfied and happy in his choice. He has something that fills the requirements, something that is neat and compact, something that will last as long as his camera lasts, something that it is a pleasure to consult and display, something that is so little of an inconvenience that it is always carried, perhaps at the end of a watch chain, as some carry a pencil or other convenience. One

dealer that we know makes a practice of suggesting the engraving of the customer's initials on the case, this costing only a small sum and adding greatly to the appearance; adding anything to the utility of the meter, being another question. If you want something really worth while in the way of an exposure meter, write George Murphy, Incorporated, 57 East Ninth Street, New York, and ask for circulars describing the Wynne Infallible Hunter Meter, or ask your dealer to show you one.

### "Agfa" and "Sagamore" Products

The large, bold advertising that is being done by Mr. Barrows in behalf of his firm, the Sagamore Chemical Company, Incorporated, is quite indicative of the success the firm has achieved with the two lines of photographic chemicals being marketed. "Agfa" products, for which the firm is American agents, need no introduction or recommendation from us, it being sufficient to announce that they are again obtainable in this market. "Sagamore" products have made a name for themselves since their introduction a few years ago when they were first put on the market to supply the deficiency caused by war conditions. Both lines are carried by many of the best dealers and the number is constantly increasing as a result of the increased demand due to the growing popularity. Ask your dealer about these two lines and if unable to give them the trial you would like, write direct to the Sagamore Chemical Company, Incorporated, 120-122 West Thirty-first Street, New York, and ask for information and prices. They will be gladly sent.

### An Exceptional Opportunity

The Photographic Section of the Oakland Art Association has arranged with Director W. H. Clapp, of the Municipal Art Gallery, for a course in Pictorial Compositions specially arranged for Photographers. Of special interest to those interested in pictorial work, it will be of great value to any one interested in even "press-the-button" photography. Semi-monthly meetings and lectures will be held, and the field work of the members of the class, demonstrating the application of the subject of the previous meeting, will be criticised by the Director. Monthly exhibits

## CAMERA CRAFT

of the work of prominent pictorialists are hung in the Gallery, and will be available for study in connection with the course.

Twenty members only will be enrolled, to allow of proper individual attention, and the fee for the course of ten lessons will be ten dollars. There are a few openings for non-members of the Section, and applications for membership in the class will be received by the Secretary of the Photographic Section, Municipal Art Gallery, Civic Auditorium, Oakland, California.

### Off for Florida

H. James, the popular landscape, portrait and miniature artist, so well known to many of our local readers, recently departed for Florida where he will spend the winter months, part of the time on the Bahama Islands. He was accompanied by his able assistant, Miss Ashworth; and a large number of their friends assembled at the station to bid them farewell and wish them an enjoyable and profitable visit. Mr. James expects to secure a number of new pictures to add to his already famous collection of subjects secured in all parts of the world.

### Henry G. de Roos Enlarges Business

Henry G. de Roos, the well known Pacific Coast photo supply dealer, has made some vast changes in his business, the firm being now known as Henry G. de Roos, Inc. Mr. de Roos is the president and G. A. Glover, for many years connected with the Pacific Coast Branch of the Eastman Ko-

dak Company, is vice-president and treasurer of the new organization. Both of these gentlemen are considered as among the best posted men in the photographic supply business in the West. The company is now carrying one of the largest and most complete stocks of photographic goods in this section of the country. The professional department, which has recently been opened, is in charge of men well versed in the needs of the professional photographer, and there is carried all the latest equipment, as well as a large and complete line of plates, portrait film, papers, chemicals, mounts and folders, and sundry supplies. A complete catalog is now under way and is expected to be ready about the latter part of November. Send in your name and address to Henry G. de Roos, Inc., 88 Third Street, San Francisco, to assure being on their mailing list.

### Death of Mrs. Lively

Not a few of our readers will be pained to learn of the death, on September second, last, of the good wife of our esteemed friend 'Dady' Lively of the Southern School of Photography, McMinnville, Tennessee. Mrs. Lively was known to a number of our readers who have attended the school, so well known throughout the country, and particularly in the South. "Dady" himself is no stranger to an army of photographers, all of whom will join us in extending sympathy to one so well liked wherever known.



Statement of the ownership, management, circulation, etc., required by the Act of Congress of August 24, 1912, for October 1, 1920, of "Camera Craft," published monthly at San Francisco, State of California, County of San Francisco.

Before me, a Notary Public in and for the State and county aforesaid, personally appeared Fayette J. Clute, who having been duly sworn according to law, deposes and says that he is the Editor of the "Camera Craft" and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in Section 443, Postal Laws and Regulations, printed on the reverse of this form, to-wit:

Publisher, Camera Craft Publishing Company, San Francisco, California; Editor, Fayette J. Clute, San Francisco, California; Managing Editor, Fayette J. Clute, San Francisco, California; Business Manager, Fayette J. Clute, San Francisco, California. That the owners are Camera Craft Publishing Company, San Francisco, California; Harriet E. Clute, Trustee, Hanford, California; Romaine F. Clute and Clifford H. Clute, Beneficiaries, Mountain View, California.

That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent

or more of total amount of bonds, mortgages, or other securities are none.

That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company, but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest, direct or indirect, in the said stock, bonds, or other securities than as so stated by him.

(Signed) FAYETTE J. CLUTE, Editor.

Sworn to and subscribed before me this thirtieth day of September, 1920.

SID J. PALMER, Notary Public, in and for the City and County of San Francisco, State of California. My commission expires December thirty-first, 1922.

# CAMERA WANTS

Advertisements of the nature shown below will be inserted under this heading at the rate of fifty cents each insertion, for twenty-five words or less; each additional word, two cents extra, cash with order. Those of positions wanted inserted once free. No regular business advertisements accepted.

Hereafter, in counting words, such groups of letters, figures, or figures and letters as B. & L., \$300.00, 8x10, 10½-in., f-4.5, Ser. III, No. 3, 3A, and the like, may be considered as one word. The advertiser's own or firm name can be counted as two, and any reasonable address as five words, except as the actual number of words in the latter may be less. These advertisements **MUST BE PREPAID**, and if any excess is sent in, it will be returned with our acknowledgment of the order. Advertisements reaching us later than the eighteenth must be held over until the next following month.

**BOOKS** Photographic books and magazines of all kinds bought and sold. Back issues of many magazines on hand. List sent for stamp. Please state needs, as supply on hand is continually changing. Harry A. Brodine, 777 Forest Ave., Bronx, New York.

**WANTED** Negatives of Yosemite Valley. Will buy scenic negatives of all kinds. Address D. E. A., care Camera Craft, San Francisco, Cal.

**FOR SALE** Studio doing better than \$1000.00 per month. at Sacramento, Cal. Address S. A. C., care Camera Craft, San Francisco, Cal.

**EXCHANGE** Have you a picture that's odd, funny or a freak? I have and will exchange with you. Any size up to 6x8. Cobb X. Shinn, Liberty Bldg., Indianapolis, Ind.

**RETOUCHING** Correctly handled by an expert. Color specialist in portraiture and landscape. Emerson Beers, Room 260, Pacific Bldg., 821 Market St., San Francisco, Calif.

**WANTED** Will buy amateur negatives of Yosemite, Tahoe, Redwoods, sunsets. Send description and price. Amateur Photographer, 1644 Summit Ave., Pasadena, Calif.

**FOR SALE** 3¼x5½ Compact Graflex with B. & L. 1c Tessar f-4.5 lens, roll holder and leather carrying case. C. H. Alexander, 1100 Fenimore St., Fairmount, W. Va.

**FOR SALE** 14-year established studio, centrally located in San Jose, equipped for portraiture, commercial work and kodak finishing; doing good business; rent \$37.50, including light, heat, water, janitor and elevator service. Owner retiring from business. Address, S. H. B., care Camera Craft, San Francisco, Calif.

**FOR SALE** Auto Graflex, like new; Goerz Color, f-4.5, 6-in. focus lens, adapter, one plate-holder; also new velvet lined, sole leather carrying case. First \$100.00 offer takes it. R. R. Bowers, Thayer, Kansas.

**FOR SALE** A good paying studio on ground floor in one of the liveliest towns in Southern Oregon. Address G. K., care Camera Craft, Claus Spreckels Bldg., San Francisco, Calif.

**FOR SALE** Eight room, ground floor studio, fully equipped with best of lenses and cameras, including 8x10. Double slant, north skylight. Northern Light and flash light equipment. Electric printers and driers and everything complete to do first class work. A fine business for three good workmen. Fine location on main street; town surrounded by prosperous and beautiful farming, dairy, lumber and mining country. Best of fishing, hunting and other sports. Business established 14 years. Price, \$3000.00, including building. Reason for selling: Have Made Good. For further particulars send self-addressed envelope to Smith's Photo Studio, Colville, Wash.

**FOR SALE** or Trade, 5x12 Al Vista Panorama, A-1 shape, \$18.00. 5x7 Plastograph lens in Safety shutter of exceptional speed, \$8.00. H. G. Raveling, Warren, Minn.

**FOR SALE** Ground floor studio in Western Pennsylvania. 15,000 population, doing fine business in portraiture, commercial work, framing, kodak finishing and supplies. Over \$4500.00 a year. Will sell for \$1500.00. I. N., care Camera Craft, San Francisco, Calif.

**SEATTLE** Photo studio for sale. In good working order, in finest location in the prosperous city of Seattle, Washington. Price \$1,500.00. For full particulars, address A. M. B., care Camera Craft, San Francisco, Calif.

**FOR SALE** One almost new equipment for studio, including lens, cameras, backgrounds, printing machine, etc. Will sell any or all together. State wants and send for description and prices. Jesse L. Blickenstaff, North Manchester, Ind.

**INSPIRATION** Photos for sale. Life studies from living models of rare picturesque beauty in classic or statuesque poses, draped or undraped, especially adapted to artists' use. Gems of ideal womanhood, 5x7 size, 50 cts. each, \$5.00 a dozen, \$30.00 a hundred, all different. Johnson's Studio, Hillsboro, Ore.

**PHOTOGRAPHER** Desires position, preferably in South west. Experienced in home portraiture and commercial work. Has 7x11 Home Portrait outfit. Good printer. F. R. Nivison, 325 Genesee St., Utica, N. Y.

**FOR SALE** 3¼x4½ Auto Graflex, B. & L. Zeiss Tessar lens, 6 holders, roll holder, etc., with carrying case. \$130.00. V.-P. Seneca, \$20.00 Del. tank Kodak enlarging outfit, \$10.00. Horace T. Newcomb, 831 Elm St., Woonsocket, R. I.

**FOR SALE** Five 36-in., direct current Cooper-Hewitt movable skylight tubes and one No. 6, 18 in. double tube. Suitable for live photographer. Fred Havercamp, 520 Market St., Chester, Pa.

**FOR SALE** Bathing girl negatives. Snappy ones, good figures, pretty faces, nifty poses. \$1.00 each, no proofs sent. Enclose money with order. Spokane Film Developing Co., Spokane, Wash.

**FOR SALE** B. & L. Zeiss Convertible Protar lens, series VII, 18⅞-in. and 23⅞-in. foci. List \$244.00. My price \$110.00 for quick sale. T. H. Wilton, 717 Market St., San Francisco, Calif.

**WANTED** Second-hand 2¼x3¼ Revolving Back Graflex with focal plane shutter. Must be in good working order and the price must be reasonable. Give full description and address, Julius Johnson, Y. M. C. A., Duluth, Minn.

**FOR SALE** 3¼x5½ 3A Autograph Kodak. Special fitted with Zeiss Kodak Anastigmat, f-6.3 in. compound shutter, perfect condition. Outfit also includes leather carrying case and portrait attachment. Price \$45.00. R. R. Scobey, 1215 S State St., Syracuse, N. Y.

**FOR SALE** 3A Ensign, roll film, genuine Zeiss Tessar f-6.3 lens in Killos shutter. Best cash offer or trade for 8¼ in. f-4.5 lens in shutter preferred. Also 3A Filmplate Premo and outfit, Cooke anastigmat f-6.3 lens in compound shutter. Price, \$60.00, less five dollars for quick sale. No trades. T. Morse Lloyd, 949 Ogden Ave., New York, N. Y.

**FOR SALE** Zeiss Convertible Protar lens, Series VII, Foci 18⅞-in. and 23⅞-in. Volute shutter. List, \$244.00; my price, \$110.00 for quick sale. T. H. Wilton, 717 Market St., San Francisco, Calif.

**WANTED** Second-hand 11x14 Electric Kodak dry mounting press. For sale or trade, one 12-gal. earthenware film developing tank, one style E developing machine, 8x10 rectilinear lens in Automate shutter, and an embossing press. Eastman Studio, Bode, Iowa.



We call it

# ELON

Elon is our trade name for the monomethyl paramidophenol sulphate we manufacture.

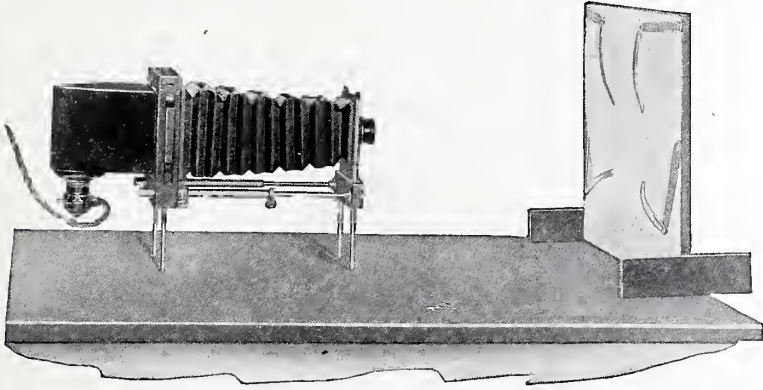
Say Elon and you will get the genuine article—at the right price.

**\$11.25** per pound

*We make it—we know it's right.*

EASTMAN KODAK COMPANY  
ROCHESTER, N. Y.

*All Dealers'.*



YOUR vacation pictures, for example—those sharp, clean-cut negatives that you made last summer, will yield excellent enlargements with a

## Kodak Enlarging Outfit

Too compact to be a problem as to storage—there's room for it on the closet shelf—and a table top is all the space required when in use.

And yet the Kodak Enlarging Outfit is a thoroughly practical instrument. From negatives up to 4 x 6 inches, enlargements up to the size of the easel, 14 x 17 inches, may be readily made.

Nor do these dimensions indicate all that the outfit can do. Utilize the wall as an easel and make the prints as large as you like.

The outfit includes Enlarging Camera, lens and diaphragm (largest stop U. S. 4), easel, lamp housing, light cord and plug, but does not include the 60-watt Mazda electric light bulb.

Kodak Enlarging Outfit . . . . .	\$25.22
Lantern Slide Block . . . . .	.75
Portrait Attachment No. 5 . . . . .	.75

EASTMAN KODAK COMPANY,  
ROCHESTER, N. Y.

*Blue skies, green fields—colors as  
the eye saw them with*



## VELOX TRANSPARENT WATER COLOR STAMPS

It's fun to color your prints—Velox Water Colors make it easy—and the results are well worth the effort.

The Velox Transparent Water Color Stamp Outfit includes the book of stamps, three brushes and a white enameled mixing palette, put up in a neat cardboard case.

Velox Transparent Water Color Stamps, complete booklet, twelve colors,	\$0.45
Separate Color Leaves, two sheets,	.03
Set of three Special Brushes, per set,	.50
Mixing Palette,	.25
Velox Transparent Water Color Stamp Outfit, including book, three brushes and palette,	1.00

EASTMAN KODAK COMPANY  
ROCHESTER, N. Y.

*At your dealer's.*

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*What's the  
Date?*

*They look  
and  
think of  
You*

A print from your collection mounted in an

## Amateur Calendar

makes it a distinctive holiday greeting that only you could send.

Supplied in two sizes—No. A for vertical prints, either  $1\frac{1}{2} \times 2\frac{1}{2}$  inches or  $2\frac{1}{2} \times 3\frac{1}{2}$  inches; No. B for  $2\frac{1}{2} \times 4\frac{1}{2}$  inches or  $3\frac{1}{2} \times 5\frac{1}{2}$  inches.

The color scheme is grey and the embossed design is such as to give the effect of birch bark. The words "Greetings" and "Days of the Year" are embossed in gold.

*Your Kodak dealer has them.*

EASTMAN KODAK COMPANY  
ROCHESTER, N. Y.

# AFTER THE TURKEY



## The Kodak Album

THE out-of-town folks will be sure to want to see your pictures—and good as they are they tell their story best from the pages of an album.

The Kodak Album is just the thing.

*Price,*  
**\$4.25 and \$6.50**  
according to size.



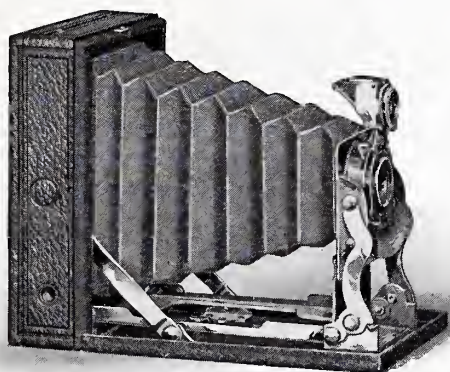
## Kodak Portrait Attachment

THE holiday home-coming presents an opportunity for impromptu portraits of grandfather and grandmother, the visiting cousins and all the rest, that you can't afford to miss.

And you certainly can afford the Kodak Portrait Attachment at seventy-five cents.

**EASTMAN KODAK COMPANY**  
**ROCHESTER, N. Y.**

*At your dealer's.*



# *The* Pocket Premo *and* Premo Film Pack

Ready in an instant.

The lens swings quickly forward into correct focus when the camera is opened. The shutter is ready and—click—you have the picture. Draw out a paper tab and again you are ready.

Though hardly a handful when closed, the Pocket Premo makes  $2\frac{1}{4} \times 3\frac{1}{4}$  pictures and makes them well. Both the camera and film are Eastman made.

Price, \$13.85

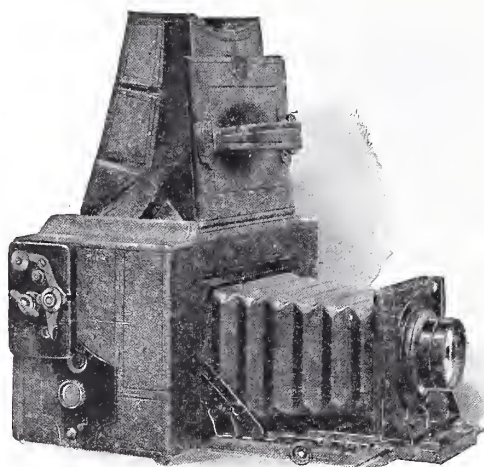
*All Kodak Dealers*

Eastman Kodak Company

*Rochester Optical Department*

ROCHESTER, N. Y.





## *The 3<sup>A</sup> GRAFLEX*

*Autographic*

Presents a combination of picture-making certainty and convenience that has earned wide popularity.

Full picture size reflection—equally helpful in landscape, portrait or speed work.

Twenty-four instantaneous shutter speeds and adjustments for time exposures—a range suitable for a wide field of amateur photography.

Daylight loading with standard  $3\frac{1}{4} \times 5\frac{1}{2}$  Kodak Film cartridges.

The Autographic feature which permits writing a title or date directly upon the margin of every negative.

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Eastman Kodak Company

*Folmer & Schwing Department*

ROCHESTER, N. Y.

Negatives by  
General  
C. C. Sniffen  
U. S. A.



## Preserving the Summer

Snapshots really worth saving, those that will hold their interest longest, must often be taken under conditions requiring a superior lens—preferably a

## Bausch & Lomb

### *Tessar Lens*

The Tessar Ic, F:4.5, is essentially a speed lens, having twice the speed of the ordinary camera lens. It enables one to take sharp, clear pictures even under the most adverse light conditions, making possible good snapshots where a common lens would necessitate a time exposure; when light is good, it will stop the fastest moving object.

The Tessar IIb, F:6.3, with twice the speed of an ordinary lens, can be fitted to almost any hand camera, and is especially recommended for use on small cameras, where the negatives are to be enlarged. It is the universal anastigmat, with speed enough for snapshots in the shade, and especially fitted for copying, enlarging and lantern slide making.

Our complete photographic lens catalog, recently issued, will be sent upon request to anyone interested.

## BAUSCH & LOMB OPTICAL COMPANY

624 St. Paul Street, Rochester, N. Y.

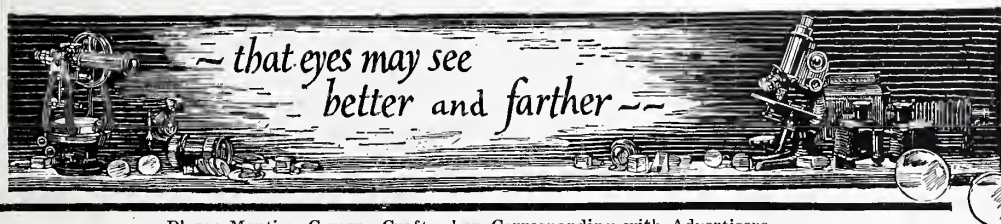
NEW YORK

CHICAGO

SAN FRANCISCO

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Leading American Makers of Photographic Lenses, Microscopes, Projection Apparatus (Balopticons), Ophthalmic Lenses and Instruments, Photo-Micrographic Apparatus, Range Finders and Gun Sights for Army and Navy, Searchlight Reflectors, Stero-Prism Binoculars, Magnifiers and other High-Grade Optical Products.



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# NIGHT OR DAY

*with the New Model*

## SIMPLEX NORTHERN LIGHT

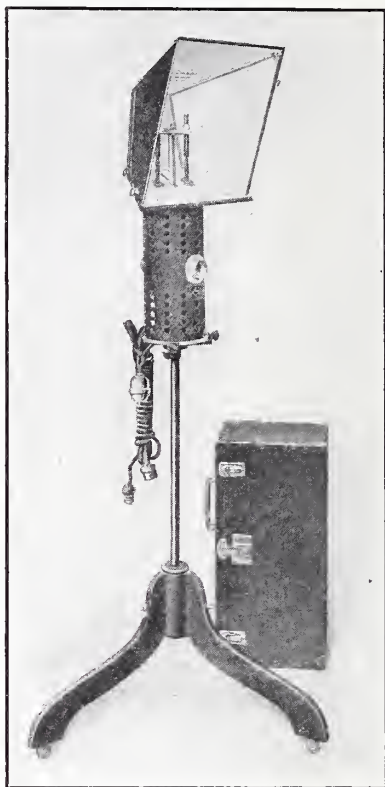
15 Amperes  
10,000 Candle Power

No 1: PRICE

\$90.00

No. 2: PRICE

\$95.00



Permits exposure, 8 x 10 plate,  $\frac{1}{4}$  sec., using f-4.5 lens. A. C. or D. C. current. Can be attached to any house circuit by simply removing bulb from socket and connecting light in its place. Straight reflectors supplied with all models of Northern Light, unless 45° angle reflector, as in illustration, is specified.

SIMPLEX PHOTO PRODUCTS CO.  
RICHMOND HILL (LONG ISLAND) NEW YORK



# Johnson's Pure Chemicals



## METOL-JOHNSONS

### PRICE LIST

1 oz.	4 oz.	8 oz.	16 oz.
\$ .80	\$3.00	\$5.80	\$11.25



## AMIDOL-JOHNSONS

### PRICE LIST

1 oz.	4 oz.	8 oz.	16 oz.
\$ .75	\$2.70	\$5.15	\$10.00



**METOL - JOHNSONS** is chemically and photographically the pure Metol, and whether used as a single developer or combined with Pyro or Hydrokinone for the development of Plates, Films and Papers, satisfactory results are assured.

**AMIDOL-JOHNSONS** gives complete satisfaction with all the many makes of Bromide Paper. Prints, either contact or enlargement, developed with Amidol-Johnsons possess that true black colour and range of tones so much desired by all who aspire to artistic and pictorial effects.

Ask for "JOHNSONS"

MANUFACTURED BY

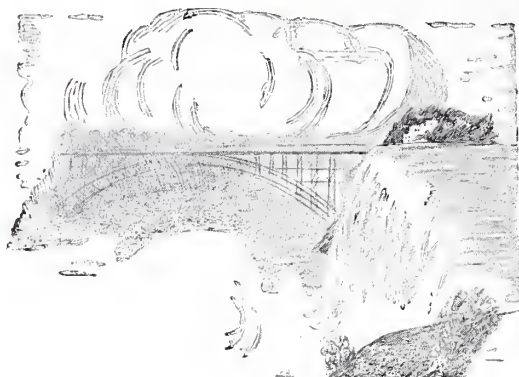
**JOHNSON & SONS**

Manufacturing Chemists, Ltd.

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NEW YORK

LONDON  
E. C.

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**D**EPENDABLE as Niagara's power! *Constant* as the ebb and flow of tide! *Unfailing* as the seasons' changes! Nature's laws are the bulwarks upon which man builds with complacent certainty the works of industry and commerce.

The highest attribute a first class photographic paper can possess is *Dependability*, *Constant Uniformity*, *Unfailing Adherence* to a *fixed* standard. Nothing better can be said of *Haloid* papers than that they *ARE Uniform*, *Constantly* and *Unfailingly*.

And the Uniformity of Haloid Quality Papers is dependent upon several things. Not *plant* alone, not *personnel* alone, important as both are; but along with these things is earnestness of purpose, sincerity of effort, unswerving determination to produce good goods with dependable and unfailing constancy.

## THE HALOID COMPANY

New York City Office  
225 Fifth Ave.

Rochester, N. Y.

Chicago Office  
68 W. Washington St.

*HALOID IMPERA is Pre-eminent as a fine Portrait Paper*

TRADE



MARK



IBA brand developers are conceded the best that modern chemistry can produce. At dealers, or write us. They are manufactured by the Society of Chemical Industry, in Basle, Switzerland; established in 1864; entirely Swiss owned. These comprise:

**Metagol CIBA**

(Monomethyl paramido phenol sulphate—  
better than the best metol you ever used.)

**Diamidophenol CIBA**

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**FREE to Photographers:** New and complete book of formulae for developers, toners, intensifiers, reducers; hyperfocal table and other helps. First edition ready now—free on request.

**CIBA COMPANY, Inc., 89 Barclay St., New York**



# 1920 Ruby Reflex

Thornton-Pickard—England

**Cooke f.4.5 Anastigmat Lens**  
**Automatic Shutter**  
**Revolving Back**  
**Rising Front**

You can make action pictures with the RUBY REFLEX at the critical moment of their performance

The RUBY REFLEX CAMERA can also be used for perfect still pictures and indoor photography in weather where the ordinary camera fails.

PRICE:

2 1/4 x 3 1/4, \$110; 3 1/4 x 4 1/4, \$130

At Your Dealer's

**Chas. G. Willoughby, Inc.**

110 W. 32nd Street

New York City

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# CARL ZEISS JENA

THE modern productions of the old world's optical science are now available for all America. To those who require optical instruments of indescribable scientific accuracy, the productions of the world famous CARL ZEISS WORKS are well known.

The remarkable optical qualities with which CARL ZEISS lenses are endowed, leaves nothing to be desired for the most critical photography.

"As good as a CARL ZEISS" is the highest compliment that can be paid a photographic lens.

Learn more about CARL ZEISS lenses at your dealer's or write direct.

Harold M. Bennett

*U. S. Agent*

110 East 23d St., New York



Uses Standard Film

Has 200 Feet Capacity

Film Footage Record

Side Focusing Device

Brilliant View Finder

**BARGAIN PRICE** **\$35.00**

(WITHOUT LENS)

With BAUSCH & LOMB  
50 mm. Tessar in focusing  
mount complete F:3.5

**\$70.00**

(WITH SOLID HEAD SLIDING TRIPOD.....\$5.00 ADDITIONAL)

A PROJECTION LENS, 2 OR 2½ IN. FOCUS, in Focusing Collar, for above.....\$3.50

These Motion Picture Cameras were made by a Western firm that sold hundreds of them for \$117.00 each. Manufacturing difficulties, due to the war, made it advisable to discontinue the line and we are closing out the remainder at this remarkably low price. A 2-inch (50 millimeter) lens and this camera give you a practical motion picture outfit.

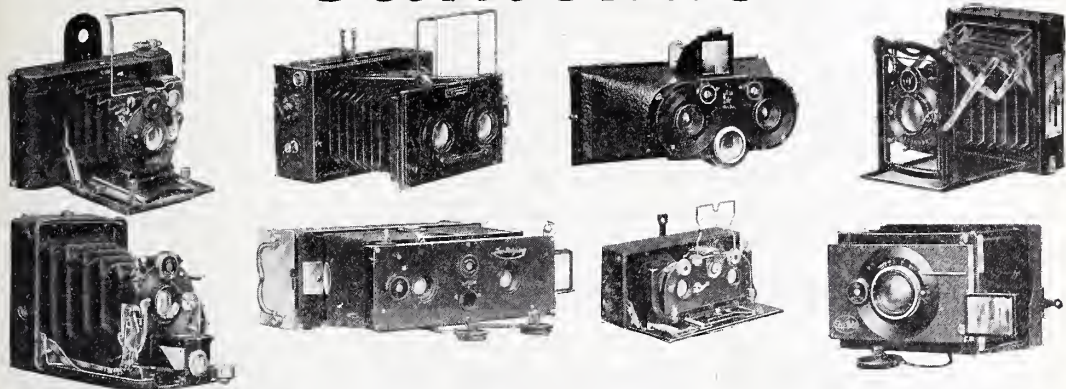
**NEW YORK CAMERA EXCHANGE**

109 FULTON STREET

NEW YORK, N. Y.

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# Ica-Contessa Cameras

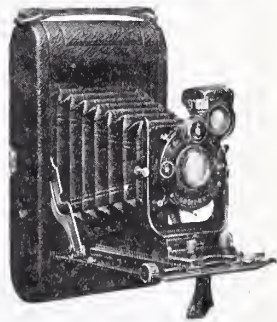
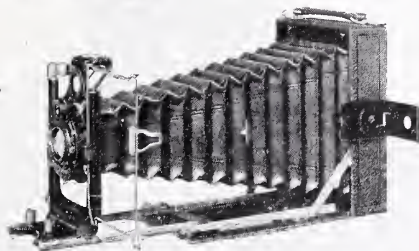
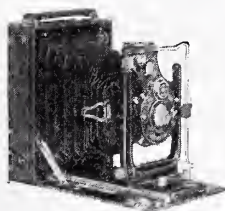
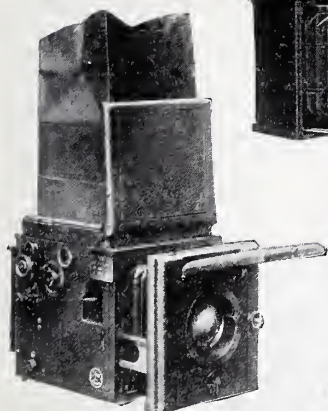
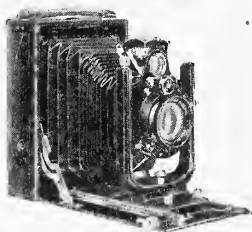
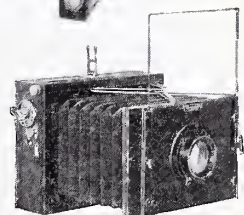
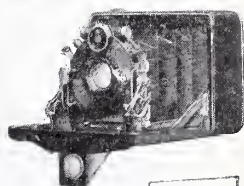


*Ica-Contessa*—finest of fine cameras—are now available, and the new catalogue, describing many new types and models—that's available too.

Harold M. Bennett  
U. S. Agent

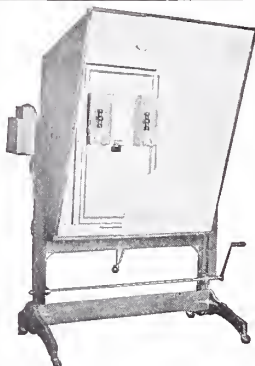
110 East 23rd Street

New York



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## In Your Operating Room on Dark Days

do the sittings proceed with customary dispatch—and do the negatives fully express your ability?

The solution of these profit-curtailling troubles given in the new illustrated booklet, "Has Every Cloud a Silver Lining For You?" will greatly interest and benefit you. You request now, on your letterhead, will bring you a copy free by return mail.

**JAS. H. SMITH & SONS CO.**

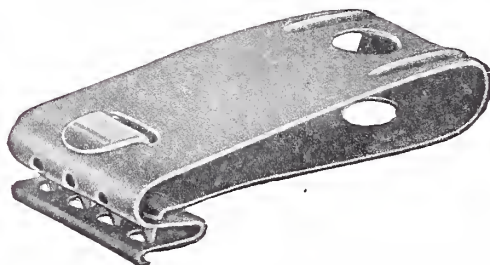
3541 Cottage Grove Ave.  
Chicago, Ill.

## Simplify and Cut Film Handling Cost

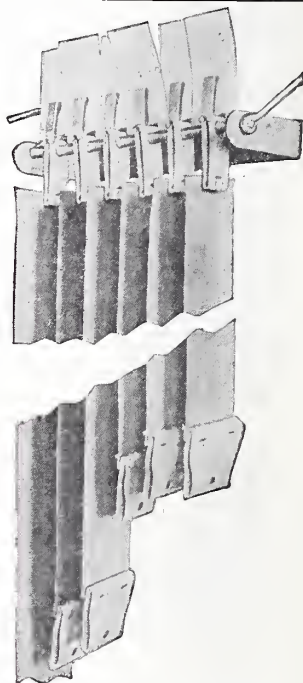
with

## Perfection Roll Hangers and Clips

The Most Satisfactory and Economical Method



Easy Loading  
Sure Grip  
No Lost Orders  
or Films  
Eliminates  
Mistakes



The Best Roll Hanger,  
Clip and Order Holder  
Made

1-inch Perfection Clips.....	per doz.	\$ 1.50
1 " " " " " " " " " " " "	per gross	18.00
1 1/2 " " " " " " " " " " " "	per doz.	1.60
1 1/2 " " " " " " " " " " " "	per gross	19.00
2 1/2 " " " " " " " " " " " "	per doz.	2.35
2 1/2 " " " " " " " " " " " "	per gross	28.00

No. 6 Roll Hanger holds 6 Films for 12-in. Tank.....\$ 2.25  
No. 10 Roll Hanger holds 10 Films for 18-in. Tank..... 3.00  
Outfit A includes 6 No. 6 Hangers for 36 Films..... 13.50  
Outfit B includes 6 No. 10 Hangers for 60 Films..... 17.50

Order from your Dealer——Write for Circular to

**NATIONAL NOVELTY CO.**

**Minneapolis, Minn.**

## THE MOST ADVANCED TYPE OF SHUTTER

"Use an Ilex and avoid shutter  
trouble." Write today  
for our free catalog



## IN THE PHOTOGRAPHIC WORLD

Showing the Famous Ilex Gear  
Combination for governing  
the slower and higher  
speeds

**ILEX OPTICAL COMPANY, 783 Ilex Circle, ROCHESTER, N. Y.**

Please Mention Camera Craft when Corresponding with Advertisers.





## The Sensation at the National Convention at MILWAUKEE

**T**HE Breiloff Universal Studio Lamp in your Studio, assures you of even light at all hours of the day or night. You do not have to depend on uncertain daylight, nor disappoint your customers. The least touch will adjust any reflector in any way for portraiture or any group. Complete .....\$165.00

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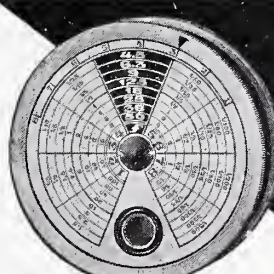
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1/125	f/4	1/300
1/110	f/3.5	1/250
1/100	f/3.2	1/200
1/90	f/3	1/180
1/80	f/2.8	1/160
1/70	f/2.5	1/140
1/60	f/2.2	1/125
1/50	f/2	1/110
1/45	f/1.8	1/100
1/40	f/1.6	1/90
1/35	f/1.4	1/80
1/30	f/1.2	1/70
1/25	f/1.1	1/60
1/20	f/1	1/50
1/15	f/0.9	1/40
1/10	f/0.8	1/30
1/8	f/0.7	1/25
1/6	f/0.6	1/20
1/4	f/0.5	1/15
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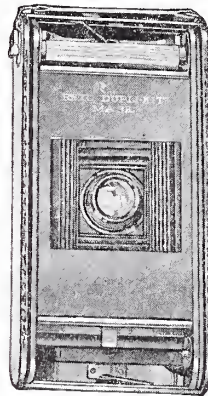
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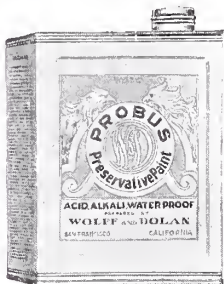
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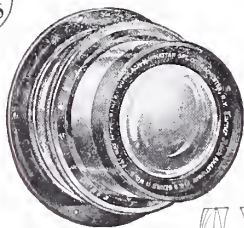
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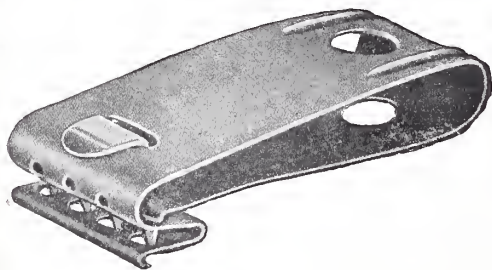
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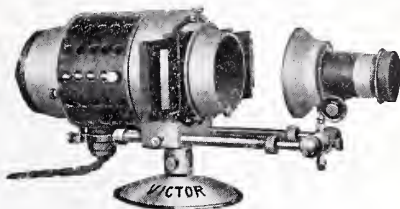
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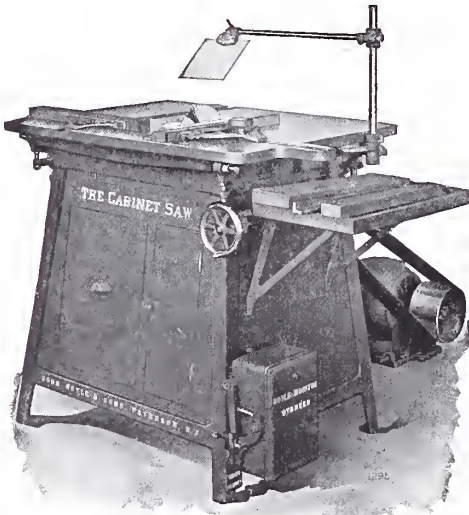
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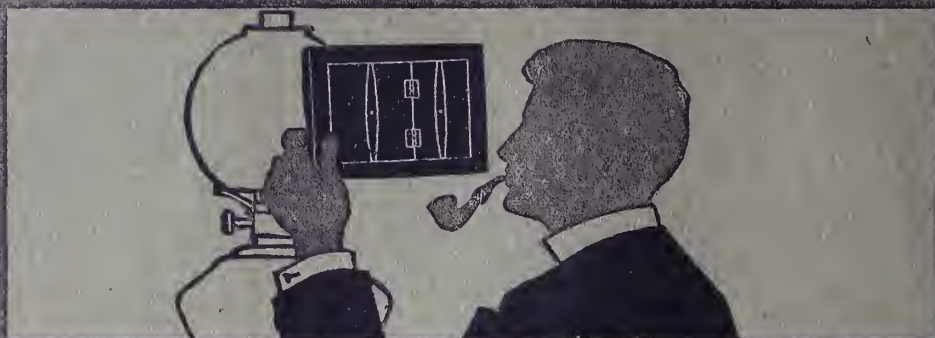
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